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MARKETING OF DAIRY PRODUCTS, 1936 - 1940

A List of References

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This list contains references to reports of studies and research in the economics of the marketing of dairy products for the period 1936 through 1940. References apply to the United States, Canada, and western Europe, particularly Great Britain, Germany, Holland, and the Scandinavian countries. Some references on Australia, New Zealand and a few of the Latin American countries are included also.

References wholly or largely on cooperative marketing are omitted because this aspect has been covered in Library List 41, Bibliography on Cooperation in Agriculture. Technological aspects of the marketing of dairy products are also omitted. Hence references on refrigeration, storage and warehousing, and transportation deal not with technology, but with economic subjects such as the impact on costs and prices of dairy products.

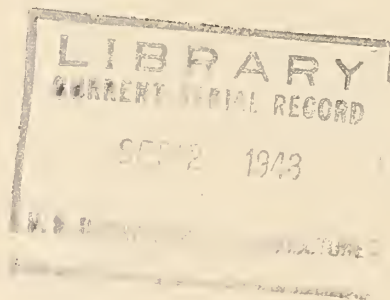
References are arranged chronologically. Within each year they are arranged alphabetically by author, or by title where no author is given.

A list giving the principal official source for each country of statistics of production and trade in dairy products is appended.

Material which was not available for examination is marked with an asterisk (*).

The Index is arranged alphabetically by author and subject.

Call numbers are those of the U. S. Department of Agriculture Library.



SOURCES CONSULTED

- Card catalog, U. S. D. A. Library.
- Agricultural Economics Literature, 1936 - 1940.
- Agricultural Index, 1936 - Sept. 1942.
- Experiment Station Record, 1936 - 1941.
- Public Affairs Information Serv. Bulletin, 1936 - 1940.
- Bercaw, L. O.
The dairy industry in the United States. U. S. Bur. Agr. Econ. Libr. List 11, 56 p.
July 1940.
- Bercaw, L. O.
State trade barriers; selected references. U. S. Bur. Agr. Econ. Lib. List 1, rev.
June 1940.
- Colvin, E. M.
Transportation of agricultural products in the United States, 1920 - June 1939. U. S. Bur.
Agr. Econ. Bibliogr. 81, 812 p. Nov. 1939.
- Hannay, A. M.
Price fixing by government in foreign countries, 1926 - 1939. U. S. Bur. Agr. Econ.
Bibliogr. 86, 631 p. July 1940.
- Larson, N. G.
The dairy industry in the United States, 1940 - 1941. U. S. Bur. Agr. Econ. Bibliogr. 97,
133 p. Feb. 1942. (Supplements Economic Library List No. 11.)
- U. S. Dept. of Agriculture. Office of Information. Div. of Publications.
Index to publications of the United States Department of Agriculture, 1936 - 1940, edited
by Mary A. Bradley. Washington, 1943.
- U. S. Supt. of Documents.
Catalog of the public documents. . . of the Government of the United States, 1935 - 1940.
Washington, 1940 - 1945.
- U. S. Supt. of Documents.
United States Government publications: monthly catalog, 1936 - 1941. Washington,
1936 - 1942.

1. ABBOTT, F. H. California's butter labeling act and factors leading to its adoption. *Natl. Butter and Cheese J.* 27: 6-8. Dec. 10, 1936. 286.85 B98Bu

Steps leading to the improvement of milk and cream quality and of the butter product itself indicate the program which has been under way in California for approximately 15 years, eventually resulting in a State law requiring all butter sold in package form to be labeled as to quality. A survey of the percentage of first quality butter sold in comparison with other grades indicates a large reduction in the sales of all undergrades with a comparable increase in volume of sales of first quality butter.

2. ALLRED, C. E., and POWELL, J. C. Consumption of dairy products and eggs in rural Tennessee with regional comparisons. *Tenn. Agr. Expt. Sta. Rural Res. Ser. Monog.* 19, 22 p. Ref. Aug. 15, 1936. 173.2 W89Co

"The principal objectives of this study are to ascertain (1) the per capita consumption of dairy products and eggs among white farm owners in the different regions of Tennessee; (2) the main causes of the regional differences; and (3) the regional variations in amount sold and purchased for home consumption." Schedules completed by 663 farm owners form the basis for the results given in the study.

3. AMESS, A. H. R., and JOHNSON, H. C. The science of dairying. Ed. 2. Auckland, Whitcombe & Tombs, 1936? 260 p., illus. 44 Am36

A well-illustrated textbook. The economics of dairy farming, marketing and care of milk, and dairy legislation and standards are treated in separate chapters.

4. ANOTHER milk agreement. New A. A. A. order gives it control over Washington, D. C. milk supply. *Amer. Creamery* 82: 810. Oct. 7, 1936. 286.85 N482

Provisions of the order are noted. These include classification of milk into two classes according to use, establishment of minimum prices which handlers are to pay producers, and establishment of a differential for butter fat content. The order does not involve prices which consumers are to pay for milk bought from handlers.

5. ARMENTROUT, W. W., and STELZER, R. O. Milk-distribution costs in West Virginia. II. A study of the costs incurred by 75 producer-distributors in the Clarksburg, Fairmont, Morgantown, and Wheeling markets for a twelve-month period during 1934-1935. *W. Va. Agr. Expt. Sta. B.* 270, 32 p. June 1936. 100 W52

Results of the study show that the average cost of distributing milk was \$1.76 per 100 pounds of milk-equivalent sold, and that the distribution cost of producer-distributors was lower than that of milk distributing plants.

6. BACKMAN, J. Adventures in price fixing. New York, Farrar & Rinehart, 1936. 57 p. 284.3 B12

Discusses the Paterson Butter Plan in Australia, Ch. 8.

7. BARTLETT, R. W. Changes in city market outlets for fluid milk. *Ill. Agr. Ext. Serv. Paper* 32, 12 p. Nov. 1936. 275.2 H62C

Shows that the responsible factors are: changes in purchasing power of consumers, a marked decline in the rate of increase in population, a shift in the distribution of foods from independent to chain stores, the use of a class I price that has been too high in relation to prices for milk for manufactured products, and the use of gross handling margins for wagon deliveries of milk which have been too high in relation to store margins of milk and margins of competing foods.

8. BARTLETT, R. W. Transportation of milk in the St. Louis milkshed. *Farm Econ.* 18: 352-362. May 1936. 280.8 J822

Paper presented at the Twenty-sixth Annual Meeting of the American Farm Economic Association at New York, December 28, 1935. A study by the Illinois Agricultural Experiment Station.

9. BAXTER, T. Stimulating a lasting revival. *Farmer & Stock-Breeder* 50: 2315, 2317. Sept. 29, 1936. 10 F228

Tells of the accomplishments of the British Milk Marketing Board and points out that organization of milk marketing has brought the best milk prices since 1924. Legislation is needed to protect the home producer from the low prices of competing products from overseas.

10. BELSHAW, H., WILLIAMS, D. O., and STEPHENS, F. B. Agricultural organization in New Zealand; a survey of land utilization, farm organization, finance and marketing. Melbourne, Melbourne Univ. Press, 1936. 818 p. 281.1993 B41

Partial contents: Ch. 28, General survey of markets and price movements (including butter and cheese), by D. O. Williams; Ch. 30, The processing and marketing of dairy produce, by F. B. Stephens; Ch. 35, Control boards (including the Dairy Control Board, 1923), by F. B. Stephens; Ch. 36, Farming industries during the world crisis: III. Ottawa and after - D, United Kingdom policy in regard to dairy produce.

11. BENDIXEN, H. A. An American looks at European indifference to ice cream. *Food Indus.* 8: 15. Jan. 1936. 389.8 F737

Ice cream, while available in all European countries, has nowhere become a staple commodity or an important industry. Ice cream manufacturing is not a distinct industry as most of it is made by confectioners, hotels and peddlers. Economic conditions which have kept ice cream in the luxury food class are the principal reasons for the lack of success in the introduction of the industry to Europe.

12. BENDIXEN, H. A. Three years of educational butter scoring work at the State College of Washington. *Inst. of Dairying, State Col. of Wash. Proc.* 9: 60-68. Mar. 1936. 44.9 W27

Results of testing 733 samples of butter sent in by 77 plants.

13. BERRY, A. E. Milk control regulations in Ontario, 1936. *Canad. Pub. Health J.* 27: 504-510. Oct. 1936. 449.8 P964

Reviews the more important sections relating to pasteurization plants and to milk plants handling raw milk.

14. BESANA, G., and DEL GUERRA, M. Sottoprodotti del latte e loro utilizzazione. Milan, Ulrico Hoepli, 1936. 435 p. 44 B462

Skim milk, casein, whey, lactose, lactic acid, and butter residues.

15. BONOW, M. Developments in Swedish production of margarine, 1919-1935. *Rev. Internatl. Coop.* 29(7): 249-255. July 1936. 280.28 In8B

Table, p. 252, gives production, home consumption and retail price of butter, 1925-1934.

16. BOUCHER, G. P. Some facts concerning milk consumption in Canada. *Econ. Annal.* 6(3): 35-37. June 1936. 281.8 Ec72

An analysis of records obtained in 1935 by the Economics and Dairy Branches of the Dominion Department of Agriculture in cooperation with the Quebec and Alberta Departments of Agriculture from 3213 families in the provinces of Quebec, Ontario and Alberta. The survey showed that the amount of milk used as a beverage represented 62 percent of all the milk consumed.

17. BROOKE, SIR B. Control of milk industry. Successful marketing scheme. *Times Trade and Engin.* (n. s.) 40(873, Northern Ireland Sect.): xxiv. Nov. 1936. 286.8 T482

The Milk and Milk Products Act (Northern Ireland), 1934, brought both producers and distributors under a uniform system of control. This article deals with grading, and the regulation of sanitation and prices. Prices to the producer, as well as retail prices, are fixed by the Joint Milk Council. Retail prices are subject to the approval of the Ministry of Agriculture.

18. BROWN, C. A. Problems arising from the basic-surplus milk marketing plan. *Milk Plant Monthly* 25(9): 40, 42. Sept. 1936. 44.8 C864

Discusses advantages and disadvantages of this plan, and gives factors which raise production costs.

19. BROWN, E. F. Current trends in milk consumption; performance of the milk market in N. Y., Boston and Philadelphia. Ser. 2-4. *New York, Milk Res. Council*, 1936. 3 v. 281.344 M59C

2nd series covers 1935; 3rd, Jan.-Apr. 1936; 4th, Apr.-July 1936. Fourth series contains "Note on the Trends in Rochester, New York." New York experienced a steady rise in total consumption until 1930. There is evidence that this represented a net gain in per capita consumption also. From the peak year, 1930, consumption dropped off rapidly to 1932, then more rapidly still to 1934, at which time a comparatively slight gain commenced.

Boston, on the other hand, experienced increased milk consumption until 1931, and even in 1932 had a greater consumption than in 1930. After 1933 the consumption plummeted, reaching a low in 1933, showing a slight gain in 1934, then sinking again. Comparatively, Boston's consumption is still considerably above New York's. The trend in Philadelphia followed a middle course. Remaining level from 1929 to 1930, it sagged slightly in 1931, rapidly in 1932, then began to gain. Philadelphia is now appreciably ahead of both Boston and New York on the path back to normal milk consumption.

20. BROWN, H. L. Accounting and overhead. Proper accounting will give facts on motor vs. horse delivery costs. *Milk Plant Monthly* 25(3): 28-30; (4): 36-38; (5): 32-34. Mar.-May 1936. 44.8 C864

Results of the study show the motortruck to be the most economical and efficient means of delivering milk.

21. CASKEY, W. Effects of seasonal milk production on marketing costs. *Milk Dealer* 25(6): 68, 70, 72. Mar. 1936. 44.8 M595

Based on a thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at the University of Illinois in 1936. Results of the study show that the use of the classified price plan in the New York milkshed resulted in widening the seasonal production in the area, whereas the use of the basic-surplus plan in the Philadelphia milkshed resulted in substantially narrowing seasonal production; also that a wide seasonal production lowers the average price to producers and results in higher unit costs of country plant operations.

22. CASKEY, W. The relation of seasonal milk production to costs of production and marketing. *Ill. Farm Econ.* 11: 54-55. Apr. 1936. 275.28 H5

To bring about a more even seasonal production of milk is sound economically because it tends to produce a lower unit cost of production, lower total costs for maintaining high quality of a sufficient volume of milk to meet market requirements, lower transportation costs, and lower costs of maintaining milk-receiving stations. These aggregate reductions in costs would materially increase the incomes of dairymen producing for city markets without increased cost to the consumer.

23. COHEN, R. L. The history of milk prices; an analysis of the factors affecting the prices of milk and milk products. *Oxford, Agr. Econ. Res. Inst.*, 1936. 205 p. 284.344 C66H

"This study is an attempt to show, both analytically and statistically, the factors which have determined the prices and supplies of milk and milk products during the pre-war period of individual buying and selling, the period of wartime control, the post-war period of partially organized bargaining, and the period up to the end of 1934, when the Milk Marketing Scheme was in operation."

24. CONFEDERAZIONE FASCISTA DEI LAVORATORI DELL'AGRICOLTURA. Il lavoro agricolo nelle attività delle corporazioni; relazioni proposte e deliberazioni. Rome, S. A. Arte della stampa, 1936. 557 p. 281.176 C762L

Includes information on the dairy industry in Italy: production and production costs, consumption, prices, and commerce.

25. CONNECTICUT MILK MARKETING PROGRAM COMMITTEE. Report. Sept. 28, 1936. 16 p. 280.344 C762

A study of price structure, distribution, production costs, and sanitary requirements. Recommendations for a milk plan.

26. CONSUMERS' COMMITTEE FOR ENGLAND. Milk marketing scheme, 1933. London, 1934-36. 3 v. (18 p.) 284.344 C76M1

Shows trend of prices under the scheme.

27. CORBIN, C. L., ERWIN, R. E., and FRANK, L. C. Interstate uniformity of milk laws and regulations. *Internat. Assoc. Dairy and Milk Insp. Ann. Rpt.* (1935) 24: 222-237. 1936. 44.9 In89

Offers views for and against uniformity from the standpoints of scientists, municipalities of the same area, control officials, the dairy farmer, and the distributor; states the case of the consumer and considers the possibility of realizing increased consumption through uniformity. Discusses Public Health Service Standard Milk Ordinance in connection with such a program.

Discussion, p. 237-247.

28. COUNCIL OF STATE GOVERNMENTS. Milk control hearing. Held in New York City, Feb. 1, 1936. 17 p. 280.344 C83

Discusses the milk control problem in the New York City region and proposals made for its solution.

29. COWDEN, T. K., and FOUSE, E. G. The supply and utilization of milk in Pennsylvania. *Pa. Agr. Expt. Sta. B.* 327, 111 p. 1936. 100 P381

Presents data on the quantity of milk handled and daily per capita sales; number of dealers and distributors, and the volume of their sales; utilization of milk in manufactured products; ownership of milk plants; average production per farm; participation of farmer organizations in milk marketing; inspection of milk plants by health authorities; and interstate trade in milk.

30. CREDICOTT, J. W. The cost of serving small dealers. *Ice Cream Rev.* 19(9): 37, 82, 84, 86, 88. Apr. 1936. 389.8 Ic22

The components of this cost are the cost of manufacturing the ice cream and the cost of the service, or the distribution cost, which is more variable. The latter is studied in its four divisions: cabinet depreciation, cabinet maintenance, selling cost, and delivery and truck cost.

31. CUNNINGHAM, L. C. Seasonal costs and returns in producing milk in Orange county, N. Y. *N. Y. (Cornell) Agr. Expt. Sta. B.* 641, 41 p. Jan. 1936. 100 N48C

Describes the dairy situation in 1930-31, and presents data on yearly costs and returns in producing milk, seasonal and monthly costs, and factors affecting costs and returns.

32. CUNNINGHAM, L. C. Seasonal variation in the cost of producing milk. *N. Y. Agr. Col. Farm Econ.* 97: 2383-2384. Nov. 1936. 280.8 C812

A study based on records of 437 dairy farms in four representative sections of New York State. The cost of producing 100 pounds of milk was found to vary from 54 percent of the yearly average cost in June to 123 percent in January and February. Tables show seasonal variation (month by month) in the cost of producing milk and in the farm price of milk in New York, and the cost of producing 100 pounds of milk by formula.

33. CUNNINGHAM, L. C. Trends of the important costs of producing milk. N. Y. Agr. Col. Farm Econ. 95: 2338-2339. May 1936. 280.8 C812

In terms of the amounts of milk required to meet them, the trends of the important costs of producing milk from 1900 to 1935 have been upward in the case of hired men's wages and of dairy cow prices, and downward in the case of grain and hay prices.

34. DAIRY INDUSTRY COMMITTEE. Vital facts about a vital food. Washington, 1936. 24 p. 281.344 D142V
Contains material on amount of fluid milk utilized for cheese, dry milk, evaporated milk, and ice cream.

DAVIS, E. M., and MORBECK, G. C. Test of woods outer containers with reference to imparting odor and flavor. U. S. D. A. Misc. P. 250, 4 p. 1936. 1 Ag84M

The tests are described. Woods of 14 species are listed in order of freedom from imparting odor or flavor to butter as determined from the tests.

36. DAWE, C. V., and BLUNDELL, J. E. The financial aspect of milk production. Bristol U. Dept. Agr. and Hort. B. 15, 17 p. 1936? 10 B775

Costs and profits of 110 Bristol Province, England, dairy farms Oct. 1934-Sept. 1935. On a basis of 2,425,336 gallons of milk a profit is shown which amounts to almost three farthings per gallon, or to 7.8 percent on costs.

37. DAWE, C. V., and BLUNDELL, J. E. Winter feeding for milk production (an economic study). Bristol U. Dept. Agr. and Hort. B. 16, 55 p. 1936? 10 B775

Based upon data collected from records of 133 herds, Oct. 1934-Mar. 1935. Studies winter feeding costs and endeavors to establish general principles which are valid for any winter. A statistical table showing food cost per cow per day and food cost per gallon is included.

38. DEVAULT, S. H., and HAMILTON, A. B. Economic study of dairy farms in Maryland. Md. Agr. Expt. Sta. B. 405: 221-251. Oct. 1936. 100 M36S

Records were obtained on 540 dairy farms in Maryland during 1931-33. About 90 percent of the records obtained in 1933 were for the same farms that were surveyed the first year. Farm organization and operation practices are reported, and incomes, costs and profits analyzed. Some of the factors that determine the efficiency of production and organization are evaluated to show how they affect farm profits.

39. DIETZE, C. VON. Preispolitik in der weltagrarkrise. Berlin, Weidmannsche Buchhandlung, 1936. 248 p. Ref. 284.3 D56

Considers prices and price plans for basic commodities, including dairy products, by country.

40. DISCOUNT for cash illegal. Amer. Creamery 82: 237. June 17, 1936. 286.85 N482

New York State milk control officials ruled that a 2 percent discount on milk and cream bills, allowed the A. P. Company by certain dairies, was illegal. Because of the discount, the officials ruled, the A. P. Company was purchasing milk at prices lower than the minimums established by law and the official orders of the milk commission.

41. DIXEY, R. N. Milk: delivery to the station. Farm Econ. 2(2): 27-28. Apr. 1936. 281.8 F223

A count made once every four years between 1924 and 1936 at a railway station about 40 miles from London shows that the quantity of milk handled in 1936 was only about one-quarter of that in 1924, due to the competition of road transportation.

42. DOAN, F. J. Sunlight causes "off-flavors" in milk and other dairy products. Penn State Farmer 2: 67, 82. Dec. 1936. 276.8 P38

Includes information on the degree of protection afforded by paper as against glass bottles, and the effect of colored containers on the development of these "off-flavors."

43. DOUTHITT CORPORATION. Charting the course; a compendium history of the dry milk industry. Chicago, 1936. 15 p. 44 D742

Processes for drying skim milk are described and potential uses for the product are discussed.

44. DOW, G. F. An economic study of milk production costs in herds of producer-distributors in Maine. Maine. Agr. Expt. Sta. B. 385, 51 p. 1936. 100 M28S

Information for this study was secured by the survey method and includes costs for the year ending April 30, 1935. Records of 108 producers, who distribute all or part of their own milk supply in local markets, were studied. The records include information from three areas, Portland, Bangor and Waterville. Milk production was higher for the Portland area.

45. DUANE, M. Government regulation of prices in competitive business. Temple Law Q. 10: 262-271. May 1936. 284.3 D85

Cites judicial decisions respecting milk price-fixing laws in New York and Pennsylvania.

46. ECKLES, C. H., COMBS, W. B., and MACY, H. Milk and milk products; prepared for the use of agricultural college students. Ed. 2. New York, McGraw-Hill, 1936. 386 p. 44 Ec5M

Chapters and sections discuss market milk, manufacture and marketing of butter and dried milk.

47. FABIAN, F. W. New problems in ice cream sanitation. Internat. Assoc. Milk Sanit. Ann. Rpt. 25: 330-346. 1936. 44.9 In89

Grading, and the regulation of sanitation in the manufacture of ice cream.

48. FRANK, L. C. Coordination of American milk control report. Internat. Assoc. Dairy and Milk Insp. Rpt. 1935: 9-17, 19-21. 1936. 44.9 In89

Coordination of control efforts is needed to solve the two principal milk problems which confront the industry:

1. The production of more milk than can be sold at a profitable price, and 2. The sale of milk of inferior quality. These problems are closely related and production of quality milk in accordance with the Public Health Service plan would help solve them.

Discussion, by J. R. Jennings, S. V. Layson, and W. B. Palmer, p. 21-27.

49. GAUMNITZ, E. W., REED, O. M., and STECK, L. J. An analysis of the possibilities of increasing returns to dairy farmers through the subsidization of exports of butter from the United States. U. S. Agr. Adjustment Admin. Paper (Dairy Foreign Trade Ser.) 1, 28 p. 1936. Ref. 1.94 D14Pfo

World trade barriers in relation to butter are discussed and the encouragement of exports of butter by foreign countries is commented upon. Concludes that the exportation of a substantial quantity of butter would have the effect of increasing domestic prices to such a degree that returns to producers from a given volume of production would be greater, assuming that foreign markets could be developed.

50. GAUMNITZ, E. W., and STECK, L. J. Possibilities of increasing exports of dry skim milk from the United States. U. S. Agr. Adjust. Admin. Paper (Dairy Foreign Trade Ser.) 2, 16 p. 1936. 1.94 D14Pfo

The factors involved in a program pointing towards the exportation of dry skim milk from the United States through the payment of bounties to exporters are analyzed. Because of limited markets and import restrictions, expansion of exports through subsidies would be difficult.

51. GAUMNITZ, E. W., and REED, O. M. The price structure for milk. U. S. Agr. Adjust. Admin. Tech. Paper 1, 81 p. 1936? 1.94 D14Tec

Discusses the situation for the country as a whole and within a milkshed, and the utilization of milk in a market as influenced by the demand.

52. GAUMNITZ, E. W. The status of the Agricultural Adjustment programs with respect to the dairy industry. Dry Milk Indus. Ann. Mtg. Proc. 3: 35-45. Apr. 16, 1936. 44.9 D84

Discusses the effect of recent court decisions on the operation of the marketing agreements, with special reference to the dry skim milk industry.

54. GOLDSMITH, I. B., and WINKS, G. W. Price fixing: from Nebbia to Guffey. Ill. Law Rev. 31(2): 179-201. June 1936. 284.3 G572

An examination and discussion of several Supreme Court decisions in cases regarding price fixing. A favorable decision by the Court in the Nebbia v. New York case permitted regulation of milk prices by the State of New York.

55. GT. BRIT. COMMITTEE OF INVESTIGATION. Milk marketing scheme. *Gt. Brit. Min. Agr. J.* 43(3): 219-225. June 1936. 10 G79J

Recommendations on the average wholesale price of milk sold for liquid consumption; on the minimum retail prices; on means to effect substantial reductions in distributive costs; and on the price of milk for manufacture into butter.

56. GT. BRIT. MILK MARKETING BOARD. Amendment of milk marketing scheme, 1933. London, 1936. 42 p. 280.344 G794

These proposed amendments to the Scheme relate to depot transport charges and deductions, contributions by producer-retailers, election procedure; abolition of exemption of wholesale producers having four cows or less, and procedure for revocation of the scheme.

57. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Arrangements under the milk acts, 1934 and 1936, for increasing the demand for milk within the area of the Milk Marketing Board for England and Wales by publicity and propaganda. London, H. M. Stationery Off., 1936. 3 p. 280.344 G792Ar

Outlines a campaign to stimulate the consumption of milk. Cost of the campaign is estimated at £60,000.

58. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Report of the Committee of Investigation for England on complaints made by the Central Milk Distributive Committee and the Parliamentary Committee of the Co-operative Congress as to the operation of the Milk Marketing Scheme, 1933. London, H. M. Stationery Off., 1936. 93 p. 280.344 G7922

Complaints regarding reduction in the transit risk allowance and the prices for milk utilized for manufacture and for liquid consumption established by the Milk Marketing Board for the contract period, 1935-1936.

59. GT. BRIT. SCOTTISH OFFICE. Arrangements under section II of the Milk Act, 1934... for increasing the demand for milk by the supply of milk at reduced rates in schools within the area of the Aberdeen and District Milk Marketing Scheme, 1933. Edinburgh, H. M. Stationery Off., 1936. 4 p. 280.344 G793

Milk is to be supplied at the price of one half penny per third of a pint.

60. *GT. BRIT. SCOTTISH OFFICE. COMMITTEE OF INVESTIGATION FOR SCOTLAND. Report... on complaint made by representatives of milk distributors on the Permanent Joint Committee appointed under the scheme as to the operation of the Scottish Milk Marketing Scheme 1933. London, 1936. 16 p. 280.344 G7932

61. GREENE, H. T. Milk kept fresh 42 days by vacuum packing. *Food Indus.* 8(7): 328-329. July 1936. 389.8 F737

A system whereby the air in the top of the filled bottle is replaced with dry steam just before a gasketed metal cap is pressed on to assure closing of the bottle mouth.

62. GUILD, H. C. PakIce—saving money in the ice department. *Internatl. Assoc. Milk Dealers. Plant Sect. Proc.* 29: 46-51. Oct. 12-14, 1936. 44.9 In8

Considers the use of the ice in dairies, and the cost of making compared with purchasing it.

63. HALE, R. W. Milk-production costs at the Agricultural Research Institute of Northern Ireland. *Gt. Brit. Min. Agr. J.* 43: 768-776. Nov. 1936. 10 G79J

Includes tables giving average prime costs per cow, and average prime costs per gallon of milk produced, 1928-29 through 1935-36.

64. HALF and half milk. *Business Week* 356: 27-28. June 27, 1936. 280.8 Sy8

Concentrated fresh milk carrying a minimum of 7.8 percent butterfat and 25.5 percent total solids is sold in Ohio at 8 c. a pt., with pasteurized milk selling at 10 c. or more a qt. Profits apparently depend on the dairy's having vacuum pans available without extra investment and on the use of milk brought at the surplus price to the farmer.

65. HAMILTON, W. A. The milk supply of London. *South. Austral. Dept. Agr. J.* 39: 1421-1431. July 1936. 23 So84

The Milk Marketing Scheme is seen to provide for unity of control, improvement in prices to the producer and distributor and in the quality of milk, more reasonable hours of labor in production, more rational distribution, and greater extension of the supply of milk. Disadvantages noted are the danger of overproduction caused by a fixed price, the fact that farmers are neglecting other forms of produce for the more profitable one of milk, and the Government subsidy which may be regarded by the industry as an essential for all time.

66. HERRMANN, L. F., STELZER, R. O., and BOWLING, G. A. Milk-production costs in West Virginia: I. A study of the costs incurred by 51 farms in the Morgantown and Fairmont markets in 1934-1935. *W. Va. Agr. Expt. Sta. B.* 268, 32 p. 1936. 100 W52

The total cost of producing 100 lbs. of 4 percent milk was \$2.15 in the Morgantown market and \$2.14 in the Fairmont market. Feed was the largest item of expense with labor costs next in importance.

67. HINE, G. S. Kansas cream quality campaign. *Kans. State Bd. Agr. Rpt.* 55(217A): 93-97. Mar. 1936. 2 K13Re

The Food and Drug Administration of the U. S. Department of Agriculture provided impetus for this campaign, inaugurated January 1, 1935. The organization behind it consists of an executive board and ten district chairmen with county committees for each county. One can out of every twelve inspected was condemned on the first government inspection as unfit for food purposes. Various regulatory factors are discussed.

68. HITCHCOCK, J. A., and WILLIAMS, S. W. Studies in Vermont dairy farming. The Champlain Valley during a major depression. *Vt. Agr. Expt. Sta. B.* 405, 24 p. July 1936. 100 V59

Discusses production per cow, labor efficiency, type of market (grade A or grade B), and size of business in relation to returns for the year 1932-33.

69. HOLMAN, C. W. Present day problems of dairy farmers. *Natl. Coop. Milk Prod. Fed. Ed. Ser.* 6, 28 p. 1936. 281.3449 N21

Deals with the effect upon dairy farmers of Government foreign trade policy as exemplified in reciprocal trade agreements, the problem of butter surpluses and butter substitutes, and the expansion of dairying under the new soil conservation program.

70. HOMOGENIZED milk—a true "child" of the past 25 years gains earned recognition. *Milk Dealer* 26(3): 64. Dec. 1936. 44.8 M595

Consumer preference in the United States and Canada.

71. HOPPER, W. C. Charge account records of purchases of cheese by 92 families in the cities of Oshawa and Montreal. *Sci. Agr.* 17: 162-163. Nov. 1936. 7 Sci2

The per capita consumption during 1935 of 150 individuals in 50 Oshawa families was 6.9 pounds of all types of cheese. In Montreal, for 214 individuals in 42 families, it was 5.6 pounds. However, these figures do not accurately reflect the average consumption of cheese for either city as a whole, since the majority of the families whose charge accounts were examined had medium or high incomes. Monthly sales of cheese for the same year to the 50 Oshawa families are also shown.

72. HORN, D. W. Ice cream contamination by dippers in retail stores. *Internatl. Assoc. Dairy and Milk Insp. Ann. Rpt.* 1935: 249-252, 254-256. 1936. 44.9 In89

Also in *Milk Insp.* 5(3): 21-23. Aug. 1936. 44.8 M5929
Results of bacterial counts from samples taken in Delaware County, Pa., by a health officer, 1929-1935. Deals in part with function of Board of Health.

*Not examined.

73. HUDSON, S. C. A classification and summary of research projects in dairy marketing, including a classified list of research projects in the marketing of dairy products in the United States and Canada. Ithaca, N. Y., Cornell Col. Agr., Dept. Agr. Econ. and Farm Mgt., 1936. 33 p. 280.344 C81

The introductory part of this publication appears also in *J. Farm Econ.* 18: 320-329. May 1936. 280.8 J822

A classified list of 240 projects in progress or completed, with introductory analysis including agencies engaged in such research, distribution of projects by areas, and number of pages, figures, etc. in published studies.

74. JACKSON, C. J., HOWAT, G. R., and HOAR, T. P. Discoloration and corrosion in canned cream. *J. Dairy Res.* 7(3): 284-290. Sept. 1936. 44.8 J823

Investigation initiated by "defects in canned cream which must be considered as a potential source of danger to the cream-canning industry. The defects are discoloration of the can and, what is more serious, of the contents."

75. JACOBSON, M. S. Butterfat and total solids in New England farmers' milk as delivered to processing plants. *J. Dairy Sci.* 19: 171-176. Mar. 1936. 44.8 J822

Results of analysis over a 16-month period of more than 100,000 samples of milk from Massachusetts, New Hampshire, Vermont, Maine, Connecticut and Rhode Island producers. Samples represented all breeds and grades of cows.

76. JEANNENEY, J. M. Essai sur les mouvements des prix en France depuis la stabilisation monétaire (1927-1935). Paris, Librairie du Recueil Sirey, 1936. 257 p. (Etudes économiques publiées sous la direction de M. Gaëtan Pirou... t. 1) 284.3 J34

Includes a study of price movements of milk, butter and cheese, p. 95-174.

77. JESNESS, O. B., WAITE, W. C., and QUINTUS, P. E. Twin City milk market. *Minn. Agr. Expt. Sta. B.* 331, 24 p. July 1936. 100 M66

Retail prices of milk, Minneapolis and St. Paul, 1919-1935; distributors' spread on the basis of 3.5 percent milk annual averages 1919-1935; and distribution costs per unit of product, 1929-1933 are included.

78. KAHLER, K. M. A study of the control of butterfat testing. Columbus, Ohio State U., 1936. 13 p. 44 K12
Describes the control of testing in Columbus and Dayton, Ohio, and gives extracts from regulations in California, New York, Pennsylvania, Maryland, and Indiana. Suggests provisions of a testing law for Ohio.

79. "KILLING two birds with one stone" with combination truck. *Ice Cream Rev.* 20(2): 31. Sept. 1936. 389.8 Ic22

The truck is arranged in two compartments with suitable temperatures for milk and butter in one, and ice cream in the other. Refrigeration costs of the truck and a similar one described are half or less than formerly.

80. LAYSON, S. V. Experiences of milk dealers with homogenized milk. *Milk Plant Monthly* 25(11): 23-27. Dec. 1936. Ref. 44.8 C864

Results of a survey of 16 pasteurization plant operators in Illinois, show that consumers generally prefer it to regular milk and that sales of cream increase where homogenized milk is handled.

81. LAYSON, S. V., HUFFER, E. G., and BRANNON, J. M. Results of bacteriological survey of milk jugs and milk bottles. *Milk Plant Monthly* 25(2): 34-36, 90. Feb. 1936. 44.8 C864

Report on tests made at a number of Illinois plants.

82. LEFEBURE, R. Scientific feeding, stable labor control reduce horse route costs. *Milk Dealer* 25(4): 40-41. Jan. 1936. 44.8 M595

Horse costs have dropped approximately \$4.00 per route per month according to a study made by the Horse and Mule Association of America.

83. LOUWES, S. L. Measures taken by the Dutch Government in connection with the agricultural crisis. *Amsterdamsche Bank, n. v., Statis. Dept. Financ. & Econ. Rev.* 48: 1-8. July 1936. 280.9 Am7

Deals in part with the scheme to keep up the prices of dairy products, involving a system of levies out of which a subsidy is paid to the farmer.

84. MCDOWALL, F. H. The cheese yielding capacity of milk, and its relation to the method of payment for milk for cheesemaking. *New Zeal. J. Sci. and Technol.* 18(3): 137-364. Aug. 1936. Ref. 514 N48

Yield of cheese is not directly proportional to the fat content of the milk: Three systems of payment are studied and compared. Payment on the cheese test derived from the casein/fat ratio in the milk is preferred. Details of this system and the general implications of its adoption are outlined.

85. MACK, M. J. Dairying observations in Sweden. *Hoard's Dairyman* 81: 58-59. Feb. 10, 1936. 44.8 H65

Compares conditions in that country with those in the United States. Points out that dairying in Sweden has reached a sound and stable position due to national control and subsidizing of export butter and cheese.

86. MACKLIN, T. Developments under California fluid milk and cream stabilization act. *Pacific Rural Press* 132(19): 525. Nov. 7, 1936. 6 P112

Explains provisions of the law under which producers of fluid milk in seven marketing areas have taken steps to develop stabilization and marketing plans.

87. MACKLIN, T., KUHRT, W. J., and VEHLLOW, E. L. Regulating the marketing of farm products by State authority. *Calif. Dept. Agr. Monthly B.* 25: 295-340. July-Sept. 1936. 2 C12M

Reports developments under the State fluid milk and cream stabilization and marketing law of 1935.

88. MANHART, V. C. Effect of a milk plant quality program on the price paid to producers for milk. *Ind. Agr. Expt. Sta. B.* 404, 12 p. Mar. 1936. 100 In2P

A study of a milk quality program in an Indiana milk plant to determine the equitableness of the program to the producers. Grading and costs are included.

89. MANHART, V. C., and MOORE, A. V. Milk quality improvement effected at the farm by a plant program. *Ind. Agr. Expt. Sta. B.* 405, 16 p. Mar. 1936. 100 In2P

A simple, inexpensive milk quality program requiring no skilled technician or special laboratory was put into effect by an Indiana dairy plant. Milk purchases were made on the basis of three grades—premium, regular and low—as determined by flavor, methylene blue and sediment tests. Benefits were: (1) The milk plant received a better quality milk which, when sold as fluid milk, commanded a price of more than 1 c. a qt. higher than the prevailing price for pasteurized milk in the same market; (2) the consumer received a safe, good quality milk; (3) the producer of premium milk received a premium of about 4.5 c. per lb. milk fat which represented an increase of more than 17 percent over the prevailing price paid in the territory.

90. MASSACHUSETTS MILK CONTROL BOARD. Summary report on cost of distributing milk in the Boston market. Boston, Rittenhouse, 1936. 204 p. 280.344 M383

An exhaustive analysis of data on dealers' spreads and the relative costs of the principal methods of distributing cream and milk to consumers.

91. MATTHEWS, H. T. The Accredited Milk Scheme in operation. *Roy. Sanit. Inst. J.* 57: 231-236. Oct. 1936. 449.9 R812

In less than a year's operation of the Accredited Milk Scheme, the volume of accredited milk produced is very nearly one-third of the whole, and 10 percent of all producers are accredited. These are paid a bonus of 1 d. per gal. derived from levies paid by themselves and all other producers. The scheme is under the jurisdiction of the Milk Marketing Board of Great Britain.

Discussion, p. 236-244.

92. MEADE, D., and MEAD, R. K. Sale of dairy products at roadside markets in Maryland. *Md. Agr. Expt. Sta. B.* 394: 595-626. Mar. 1936. 100 M36S

A survey of 13 dairy roadside markets made during the summer of 1934. Factors such as weather, time of day, direction of traffic, qualities of products that appeal, and prices are considered in relation to sales.

93. MILK hearing at Albany. Amer. Creamery 82: 654-655. Sept. 13, 1936. 286.85 N482

Report of a meeting to consider various changes in the present method of milk control in New York State. Questions considered were: 1, price return to the producer; 2, method of pricing, with especial reference to the milk price classification plan; and 3, control of prices to consumer.

94. MISNER, E. G. Cycles of the numbers of cattle and of the prices of dairy products. N. Y. Agr. Col. Farm Econ. 93: 2278-2279. Feb. 1936. 280.8 C812

Cycles for the period 1921-1935 of the prices received by New York farmers for 3.7 percent milk in the 201-210-mile freight zone, of the wholesale price of 92 score butter at New York City, and of the number of all cattle on farms in the United States and of dairy cows and heifers on farms in New York, show that milk and butter prices deviated from their trends inversely to numbers of cattle. The price of butter rose and fell slightly ahead of the price of milk.

95. MOFFITT, E. L. The cost of producing milk. Penn State Farmer 2: 70, 82. Dec. 1936. 276.8 P38

The importance of feed as a cost factor in relation to constant costs.

96. MORTENSEN, M. Standardization of butter and the value of graphic chart. Wash. State Col. Inst. Dairying. Proc. 9: 26-35. Mar. 1936. 44.9 W27

Analyses by the Iowa Agricultural Experiment Station of samples of butter from 88 creameries.

97. MORTENSON, W. P. Distribution of milk under public utility regulation. Amer. Econ. Rev. 26: 23-40. Mar. 1936. 280.8 Am32

A study of distributors' margins, the effect of a reduction of distributors' margins on prices paid farmers, profits and salaries, developments leading to present inefficiencies, experiences in public control, and legal and economic features of public control.

98. MUNN, M. D. Increasing the use of dairy products. Hoard's Dairyman 81: 236. May 10, 1936. 44.8 H65

Present daily milk consumption is 1 1/2 qts per family of five. For an optimum diet it should be 4 qts, and some of the total should be taken in the form of milk products. Increases in yearly production of dairy products needed to meet this nutritional goal are shown.

99. NATIONAL DAIRY COUNCIL. What is "quality" milk? Hoard's Dairyman 81: 343. July 10, 1936. 44.8 H65

To summarize: 1, Certified milk is so designated by medical milk commissions which establish optional standards for care of cows, for handling the milk, and for the bacterial content of milk; 2, The American Association of Medical Commissions has agreed to permit producers of certified milk to pasteurize their milk under certain conditions; 3, Pasteurization does not affect unfavorably the nutritive constituents present in milk.

100. NEVOT, A. La loi du 2 juillet 1935 sur l'assainissement des marchés du lait. Lait 16: 383-389. Apr. 1936. 44.8 L143

Discusses the application of this French law to the sanitary control of milk production, processing, and distribution.

101. NEW RAIL-TRUCK containers permit rapid transfer, save handling costs. Food Indus. 8: 113-114. Mar. 1936. 389.8 F737

Savings in operations such as cleaning the tanks, pumping, and actual transfer of milk are realized.

102. NOVA SCOTIA ECONOMIC COUNCIL. Marketing of fluid milk in Nova Scotia. Nova Scotia Econ. Council. Rpt. 1: 14-16. 1936. 280.9 N85

Recommends the establishment by the Provincial Government of a board of control for the provincial milk trade. "This Board would have two functions: 1. Close inspection by full time inspectors. 2. Regulation of the price structure to adjust prices and qualities, and to remove uneconomic and unfair practices as they affect farmers, distributors and consumers. The legislation towards this end would incorporate that in the Health Act and in the Milk and Cream Producers Protective Act, and would establish the machinery to make the control effective."

103. NOYES, H. V. Report on milk marketing. Holstein-Friesian World 33: 509, 520, 522. June 13, 1936. 43.8 H742

This report, on work of the Holstein-Friesian Association of America, notes the need for uniformity in state dairy legislation. Also notes that since butterfat content is generally recognized as the measure of value when milk is sold by the farmer, some way should be found to apply the same measure when it is sold at retail. "The ideal arrangement would be to have every bottle of milk labelled showing the fat content and the price graded according to such content."

104. ODELL, E. A. Swiss cheese industry. Monroe, Wis., 1936. 88 p. 44 Od2

Discusses the origin and development of the industry in Green County, Wis., centering in Monroe, and gives information on leading producers and interests.

105. PALMER, J. T. Some effects of maintaining retail prices of whole milk at artificial levels. J. Farm Econ. 18: 759-761. Nov. 1936. 280.8 J822

Abstract of thesis (Ph.D.)—University of Illinois.

A study to determine the extent to which retail prices of whole milk in Boston, Chicago, New York City, Connecticut and the United States had been maintained at artificial levels from 1913 to 1935 and the effect of such control on the consumption of whole milk. High retail prices of whole milk in addition to causing increased consumption of canned milk and tending to reduce more milk sales, have encouraged new distributing agencies to enter a milk market. In the smaller markets, high retail prices have been accompanied by an increase in the number of producer-distributors.

106. PARSONS, M. S. Changes in the seasonal variation of milk prices and milk production. N. Y. Agr. Col. Farm Econ. 98: 2398-2400. Dec. 1936. 280.8 C812

A study of the causes of shifts in seasonality of New York State milk prices and production. From a short-time point of view, price changes have their greatest effect on later production in from two to eight months, and explain as high as 50 percent of production changes.

107. PETTIT, G. H. N. Food costs in milk production. Farmer & Stock-Breeder 50: 643. Mar. 16, 1936. 10 F228

Records collected by the Cambridge School of Agriculture from a group of English dairy farmers show feed costs to represent twice the cost of labor and four times the cost of herd depreciation. Indicates how these costs may be minimized without impairing cow nutrition and therefore milk yield.

108. PETTIT, G. H. N. Labour costs in milk production. Farmer & Stock-Breeder 50: 1011. Apr. 27, 1936. 10 F228

Shows how labor costs in producing milk may be as high as 5 3/4 d. per gal. or as low as 1 3/4 d.

109. PIERCE, C. W. Sharing of surplus milk among producers and dealers in the New York milk shed. N. Y. Agr. Col. Farm Econ. 97: 2380-2383. Nov. 1936. 280.8 C812

Differences in returns are due not only to variations in the proportions of fluid sales and surplus, but also to the methods of utilizing surplus milk. In general, the highest returns for surplus milk are realized for that used in the manufacture of evaporated milk; the lowest returns, for milk used in the manufacture of butter. On the basis of class prices established by the New York Division of Milk Control, the metropolitan distributors made the best use of surplus milk.

110. POST, J. W. Standardization of "field" grade cream. Amer. Creamery 82: 44, 46, 48. May 13, 1936. 286.85 N482

"Field" grading on a true interpretation of State definitions of No. 1 and No. 2 cream; inconsistencies in grading according to these definitions; how correcting them can result in an economic saving.

111. PRENTICE, E. P. Daily milk delivery. *Hoard's Dairyman* 81: 55, 74-75, 87, 97. Feb. 10-25, 1936. 44.8 H65

An historical account of the fluid milk trade is given, and the importance of the railroads in the development of the trade is pointed out. Concludes that there is no over-production and that the market for milk should be increased through a reduction in the retail price of milk.

112. PRENTICE, E. P. Farming for famine. *New York, Doubleday, Doran*, 1936. 146 p. 281.12 P91
Ch. II, "The milk industry, its history and present problems," deals in part with prices and returns.

113. PYLE, J. F. Marketing principles, organization and policies. Rev. ed. *New York, McGraw-Hill*, 1936. 783 p. Ref. 280.3 P99

Ch. 11, Marketing agricultural products—milk.

114. RAEBURN, J. R. Economic studies of dairy farming in New York. XII. 150 farms in the Tully-Homer area, crop year 1931. *N. Y. (Cornell) Agr. Expt. Sta. B.* 644, 53 p. Mar. 1936. 100 N48C

Includes study of costs and returns in milk production, and of factors affecting these costs and returns.

115. RANDELL, H. H. Theory of cream grading. *Agr. Gaz. N. S. Wales* 47: 529-531. Sept. 1936. 23 N472

Classification of cream into quality grades, based on flavor and aroma determinations, is the basis of the present cream grading systems. The grades and representative scale of points used are designated. Absorbed and chemical flavors and flavors due to bacteria, yeasts or molds are off-flavors specifically discussed.

116. RIDDELL, W. H. Are special milks justified? *Hoard's Dairyman* 81: 69. Feb. 10, 1936. 44.8 H65

Objects to the marketing of special milks, such as vitamin D, soft curd, irradiated, etc. Such special milks give the consumer the impression that regular milk is lacking in important food properties. Milk is a near perfect food and should remain the normal product of healthy cows.

117. RILEY, H. W. A economic comparison of different methods of milk cooling. *N. Y. State Assoc. Dairy and Milk Insp. Proc.* 14: 21. 1936. 44.9 N4833

A discussion of the cooling of milk in 40 qt. cans by well water, ice, and mechanical refrigeration, with costs.

118. RINEAR, E. H., and MOORE, H. C. Maintenance of grade A milk. *N. H. Agr. Expt. Sta. B.* 291, 24 p. Mar. 1936. 100 N45

A survey of 82 grade A and 20 grade B producers shipping milk to Boston through the Pattee receiving station at West Canaan, N. H. In summer fewer grade A producers kept their bacteria counts under 10,000 than at any other time of year. Premium rates were the highest during that season. Premiums are compared for 1931-33.

119. ROGERS, L. A. The dairy by-products problem. *Wash. State Col. Inst. Dairying. Proc.* 9: 47-53. Mar. 1936. 44.9 W27

A discussion of problems with respect to skim milk, buttermilk and whey.

120. ROGERS, L. A. Problems of the fluid milk industry. *Wash. State Col. Inst. Dairying. Proc.* 9: 120-129. Mar. 1936. 44.9 W27

Includes problems of distribution.

121. ROSS, H. A. Marketing research needs of the dairy industry. *J. Farm Econ.* 18: 363-368. May 1936. 280.8 J822

Dairy marketing research studies are classified as those which make available, for the use of all, information that is already known to a part of the industry, and those which discover new facts and principles hitherto unknown. The second category is found more significant, and problems of production, milk prices, price forecasting, and consumption are suggested for investigation.

122. SCHAARS, M. A. Secure data on retailers' margins in handling cheese. *Wis. Agr. Expt. Sta. B.* 435: 135-136. Mar. 1936. 100 W75

Margins for the different kinds of cheese are very similar, with little variation in different sections of the country. For eight out of 11 kinds of cheese, the average retail margin was approximately 27 percent. A slightly higher margin (usually 1 to 2 percent greater) was charged by stores granting credit than by those operating on a cash basis. Specialty stores, such as delicatessens, usually charged higher margins than meat and grocery stores. Margins on processed cheese were about the same as those on the natural type.

123. SCHOEN, A. Le marché agricole français et les interventions de l'état. *Paris*, 1936. 358 p. 280.3 Sch6
Thèse.—Paris.

Sect. 5 deals in part with governmental regulation of milk and milk products, and with the results thereof.

124. SCOTLAND. DEPT. OF HEALTH. Explanatory memorandum on the sale of milk under special designations. *Edinburgh*, 1936. 8 p. 44 Sco33E

Defines the following grades of milk: certified, tuberculin tested, standard, and pasteurized.

125. SEXAUER, F. H. Presentation to meeting of farm organizations of four States. *New York?* 1936. 15 p. 281.344 Se9

Considers the form, administration and effectiveness of regulatory milk legislation in the New York milkshed. The problem is resolved into one affecting the intrastate market and production areas on the one hand and the interstate market and production areas on the other.

126. SILCOX, W. B. Some economic aspects of the cheese industry in Minnesota. *Minn. U. Divs. Agr. Econ. and Agr. Ext. Farm Business Notes* 165: 1-3. Sept. 20, 1936. 275.29 M663

A survey of the operations of 20 cheese factories located in Dodge, Goodhue, and Olmsted counties. Discusses business organization, marketing facilities, prices paid producers in comparison with creamery returns, and the volume of business. Points to the effect of the size of the plant on the cost of manufacturing cheese and on returns.

127. SIMPLIFIED containers for dairy products. *Food Indus.* 8(4): 181-182. Apr. 1936. 389.8 F737

Work of the Division of Simplified Practice, U. S. Bureau of Standards, in collaboration with food and containers manufacturers and others interested in the promulgation of simplified practice recommendations covering details of specifications such as dimensions, capacities, and similar basic factors in container design—a result of the passage of the United States Container Act in 1916.

128. SORENSON, H., and CASSELS, J. M. English milk market. *Quart. J. Econ.* 50: 275-296. Feb. 1936. 280.8 Q2

Discusses the English Milk Marketing Scheme with regard to effects on producers, consumers, and distributors; gains of different producer groups, problems of production control, and consumption and marketing. Comparison is made with the A.A.A. dairy program.

129. SOUTH DAKOTA. AGRICULTURAL EXPERIMENT STATION. Cost of delivering milk in small cities with different types of conveyances. *S. D. Agr. Expt. Sta. Ann. Rpt.* 1936: 20. 100 So82

Indicates that delivery by truck is cheaper than by horse-drawn wagon where the route extends over five or more miles.

130. SPENCER, L. The changing picture of fluid milk marketing. *N. Y. Agr. Col. A. E.* 143, 15 p. Nov. 1936. 281.9 C81

Studies price relationships, consumption, methods of distribution, and public control of milk prices.

131. SPENCER, L. Research in costs of distributing milk. *J. Farm Econ.* 18: 338-351. May 1936. 280.8 J822
Discusses the plan and procedure for conducting studies of milk distribution costs and profits. Considers the scope of each project, selection of business units, access to data, physical units of product and cost, verification of records, problems projected when more than one corporation is involved in a single business, debatable items, and allocations of costs. Gives data and illustrations of several items of cost and their treatment.
132. SPENCER, L. Spread between farm and retail prices for milk. *Hoard's Dairyman* 81: 114, 134-135; 176, 192-193. Mar. 10, Apr. 10, 1936. 44.8 H65
Discusses the subject in relation to dealers' cost and profits.
133. SPENCER, L. Use of paper milk bottles. *Amer. Creamery* 82: 252-253. June 25, 1936. 286.85 N482
Tells of the use of paper bottles for milk since they were first used commercially in New York in 1929, and discusses the advantages and disadvantages of their use.
134. STANLEY, L. Consumer acceptance of dry milk solids. *Amer. Dry Milk Inst. Proc. Ann. Mtg.* 11: 54-60. 1936. 44.9 Am35
Discusses consumer attitude toward dried skimmed milk, as revealed through relief distribution of the product and through regional surveys.
135. STATE regulation of bottled, homogenized milk. *Milk Dealer* 25(8): 36-37. May 1936. 44.8 M595
Of those surveyed, 15 States had no laws or regulations governing homogenized milk; in 18 States and the District of Columbia, its sale was or would be permitted upon proper labeling; no question of the legality of such sales had come up in two States; and in four States the homogenization of whole milk was not permitted.
136. STEPHENS, F. B. The processing and marketing of dairy produce. In *Institute of Pacific Relations. New Zealand Br. Agricultural organization in New Zealand*, p. 648-689. Melbourne, Melbourne U. Press, 1936. 818 p. 281.1993 B41
Includes material on utilization of butterfat; prices and price trends of butter and cheese, 1922-1931; prices of butter and cheese, in relation to quality, season 1929-30 and 1933-1934; and costs of butter and cheese manufacture, 1925-1934.
137. STIRITZ, B. A. Responsibility of the station operator in the grading of cream. *Natl. Butter and Cheese J.* 27: 8. Mar. 25, 1936. 286.85 B98Bu
Also in *Amer. Creamery* 81: 840, 842. Apr. 8, 1936. 286.85 N482
The success of cream grading or improvement plans is linked up with the factors of production, procurement, transportation, and processing. The higher price paid the producer by the station operator for better cream determines to what extent such a program can be economically justified. How the station operator can be influential in maintaining the quality of the cream after it leaves the producer is shown.
138. STITTS, T. G. Truck route procurement of cream. *Amer. Creamery and Poultry Prod. Rev.* 83: 62-65. Nov. 11, 1936. 286.85 N482
Finds that better control of hauling by the creamery is essential to economical operation and quality maintenance.
139. TAYLOR, C. C. The British import control of milk products. *Foreign Crops and Markets* 32: 10-13. Jan. 6, 1936. 1.9 St2F
Shows reduction in permitted imports of milk products (chiefly condensed and dried milk), June 1933-March 1936. The import limitations have been designed to raise the value of the domestic milk not sold as market milk, and to further develop the milk manufacturing industry in Great Britain.
140. TAYLOR, C. C. British Milk Marketing Scheme. *Foreign Crops and Markets* 33: 634-640. Nov. 23, 1936. 1.9 St2F
Description of the six marketing schemes set up under the authority of the Agricultural Marketing Acts of 1931 and 1933 for various areas in the United Kingdom.
141. TAYLOR, C. C. Trends in British agricultural policy. *Foreign Crops and Markets* 33:459-465. Oct. 19, 1936. 1.9 St2F
Contains account of operation of Milk Marketing Scheme.
142. TEN EYCK, P. G., and BIDDLE, F. The milk container controversy. *Amer. Creamery* 82: 254-257. June 24, 1936. 286.85 N482
The New York Supreme Court decided against the New York Milk Control Board in a case regarding the price of milk sold in paper containers in New York. Statements and brief presented to the Court are given.
143. THOMSEN, F. L. Agricultural prices. New York, McGraw-Hill, 1936. 471 p. 284.3 T83
Ch. 18, Prices of Dairy Products, discusses differences in product prices, butter and cheese prices, oleomargarine and butter, trends in prices of dairy products and in cattle numbers and milk production, and the dairy outlook on the bases of demand and the general price level, changes in milk production, and feed prices.
144. TILSON, D. H. Marketing milk in Europe. *Milk Dealer* 25(12): 142, 144, 146, 148, 150. Sept. 1936. 44.8 M595
Information is given on the approximate number of operating dairies, milk sold by dairies rather than direct to consumer by farmers, and on milk bottles and seals in use for most of the countries in western Europe.
145. TINLEY, J. M. Plant operating efficiency in the market milk industry. *Berkeley, Calif. Agr. Expt. Sta.*, 1936. 13 p. 280.344 C122P
Plant operating efficiency is considered in connection with delivery and industry efficiency. Increased advertising and selling activities, quality and services, price cutting, and the merging of plants are methods discussed for the expansion of volume of output. A hypothetical example is given of relation between capacity, output, investments, and return on capital.
146. TINLEY, J. M. Price factors in the Los Angeles milk market. *Giannini Found. Mimeo. Rpt.* 48, 41 p. 1936. 281.9 G34M
A supplement and extension to Spencer's study of the Los Angeles milk market (*California Agr. Expt. Sta. B.* 513. 1931), which brings up to date some of the more significant tables and figures related to producer prices appearing in the above bulletin and analyzes the economic effects of some of the recent developments in the Los Angeles milk market.
147. TINLEY, J. M. Price factors in the San Diego milk market. *Giannini Found. Mimeo. Rpt.* 54, 25 p. 1936. 281.9 G34M
Includes material on milk prices and cost factors of production, 1929-1936.
148. TINLEY, J. M. Supplementary report on the Los Angeles milk market. *Giannini Found. Mimeo. Rpt.* 51, 3 p. Aug. 1946. 281.9 G34M
Supplements the author's "Price Factors in the Los Angeles Milk Market."
149. TOBEY, J. A. Legal aspects of milk control. *Chicago, Ill., Internat. Assoc. of Milk Dealers*, 1936. 102 p. Ref. 44.5 T55
A guide to the constitutional, administrative, public and private law in the United States as it applies to the production, handling, processing and distribution of milk and dairy products. A table of court cases, arranged by States, is given on p. 89-98.
150. TRACY, P. H. Bottled concentrated whole milk. *Amer. Creamery and Poultry Prod. Rev.* 82: 258-259. June 24, 1936. 286.85 N482
From an address, Dairy Manufacturers Conference, University of Illinois.
Results of laboratory experiments on the bacterial qualities of concentrated milk, and of a study of consumer reaction to this milk.

151. TRACY, P. H. Certain problems related to the marketing of homogenized milk. *Milk Dealer* 25(4): 30-32; (5): 60, 62, 64, 66, 68. Jan.-Feb. 1936. 44.8 M595
Paper read before the Indiana Manufacturers of Dairy Products, Indianapolis, November 22, 1935.

Conclusions from a study carried on over a three-year period at the University of Illinois. Deals with many phases of the subject, including consumer preference for homogenized milk over regular milk, nutritive value of homogenized milk, methods of homogenization, and the homogenizer as a source of bacterial contamination.

152. TROVATTEN, R. A. Benefits of the cream grading law. *Natl. Assoc. Comrns., Secs. & Dirs. Agr. Proc.* 19: 50-53. 1936. 4 N217

Discusses the Minnesota Cream Grading and Testing Law passed in 1935, which provides for separate grades for sweet cream and for a price differential or premium to be paid to the farmer producing high quality cream.

153. U. S. AGRICULTURAL ADJUSTMENT ADMIN. A survey of milk consumption in 59 cities of the United States. *Consumers' Counsel Ser. Pub.* 2, 33 p. 1936. 1.4 Ad422

This survey of purchases of whole and evaporated milk by 28,966 families during a single week in 1934 shows weekly per capita consumption to be 2.44 quarts. A satisfactory allowance, according to nutritionists, is between 3 to 5 quarts a person each week.

154. U. S. BUR. OF AGRICULTURAL ECONOMICS. The effect of the trade agreements program on the United States dairy industry. Washington, 1936. 11 p. 1.9 Ec753

Shows reductions made by the United States in its import duties on dairy products and those obtained from foreign countries, and the benefits to the American dairy industry.

155. U. S. BUR. OF AGRICULTURAL ECONOMICS. Milk and milk products used in the manufacture of milk chocolate, cocoa and chocolate coatings. Washington, 1936. 1 p. 1.9 Ec724Mi

Amount of dairy products used during 1935 by the cocoa and chocolate products industry as reported by 59 firms. Comparative figures for 1934 and 1935 are given on the basis of reports from 37 firms.

156. U. S. BUR. OF DAIRY INDUSTRY. Legal standards for dairy products. Washington, 1936. 51 p. (BDIM 583) 1.9 D145L

State standards for milk, skim milk, cream, butter, condensed and evaporated milk, ice cream, and cheese are given, for all States in the United States in effect in 1935.

157. U. S. FEDERAL TRADE COMMISSION. Report... on the distribution and sale of milk and milk products, Boston, Baltimore, Cincinnati, St. Louis. Letter transmitting the fourth report... entitled "Report of Federal Trade Commission on milk-market regulation and practices of distributors in relation to margins, costs, and profits of distributors in Boston, Baltimore, Cincinnati, and Saint Louis." 74th Cong., 2d sess., House Doc. 501, 243 p. 1936. 173 F32Mi

Includes description of markets, cooperative associations, and regulatory agencies.

158. U. S. FEDERAL TRADE COMMISSION. Report... on the sale and distribution of milk and milk products, Chicago sales area. Letter transmitting an interim report... with respect to the sale and distribution of milk products. 74th Cong., 2d sess., H. Doc. 451, 103 p. 1936. 173 F32Mi

Milk distribution, prices of milk and cheese, activities of distributors, and of farmers' cooperatives.

159. U. S. FEDERAL TRADE COMMISSION. Report... on the sale and distribution of milk and milk products. Letter transmitting an interim report. 74th Cong., 2d sess., H. Doc. 387, 125 p. 1936. 173 F32Mi

Discusses the determination of prices to milk producers, investments, costs, and net profits of milk distributors, effects of different methods of allocating expense on delivery costs of products, and margins and costs per unit.

160. U. S. FEDERAL TRADE COMMISSION. Report... on the sale and distribution of milk and milk products, Twin City sales area. Letter from the Chairman... transmitting an interim report... with respect to the sale and distribution of milk and milk products in pursuance of H. Con. Res. 32, 73rd Cong., 2d sess., adopted June 15, 1934. 74th Cong., 2d sess. H. Doc. 506, 71 p. 1936. 173 F32Mi
Deals with milk distributors, health regulations, the Twin City Milk Producers Association, and milk prices in the area.

161. VAN BUSKIRK, M. G. Illinois cheesemakers have unified quality drive. *Natl. Butter and Cheese J.* 27(15): 27-29. Aug. 10, 1936. 286.85 B98Bu

Rules and regulations of the Illinois Cheese Manufacturers Association leading to the production of higher quality cheese.

162. VARNEY, H. R. Transportation of milk and cream to the New York market. *N. Y. (Cornell) Agr. Expt. Sta. B.* 655, 79 p. 1936. 100 N48C

Discusses and compares the costs of transportation of milk by different methods. For distances greater than 200 miles, railroads appear to offer more economical transportation than motor trucks.

163. WAITE, W. C. Research in the consumption and demand for milk. *J. Farm Econ.* 18: 330-337. May 1936. 280.8 J822

Needed research in milk.

164. WATSON, J. Fluid milk market stabilization for the Bay region. *Calif. Dept. Agr. Monthly B.* 25: 101-106. Mar. 1936. 2 C12M

Discusses milk marketing conditions peculiar to this region and shows what voluntary and State action has been taken in attempts to alleviate them.

165. WEST VIRGINIA. DEPT. OF AGRICULTURE. Milk testing requirements. Charleston, 1936. 32 p. 44 W52J

The milk testing law, passed Mar. 6, 1931, was designed to regulate the weighing and testing, buying and selling of milk and cream, and to assure to producers correct weights and tests for deliveries. Procedures set up for carrying out provisions of the law are given.

166. WHITE, E. D., and GREGG, V. L. Grading and marketing sour cream. *Ark. Agr. Col. Ext. C.* 314, rev., 7 p. June 1936. 275.29 Ar4

Presents various methods of grading and marketing cream to serve as a guide in improving the average grade.

167. WILSON, G. S. The grading of raw milk on the basis of bacterial cleanliness. *Internatl. Assoc. Milk Dealers. Lab. Sect. Proc.* 29: 11-20. 1936. 44.9 In8

Recommends the use of the modified methylene blue reduction test for this purpose.

168. WILSON, G. S. Milk: but what milk? *Spectator* 157: 782, 784. Oct. 30, 1936. 110 Sp3

Discusses the different grades of milk sold in Great Britain.

Discussion, p. 813-814, 922. Nov. 6, 20, 1936.

169. WINKLER, W., GRIMMER, W., and WEIGMANN, H. *Handbuch der milchwirtschaft.* Wien, Springer, 1936. 3 v. Ref. 44 W725H

In Bd. 3, t. 2. is included information on the status of the industry, organization, quality improvement and control, regulation, public relations, standards, prices, and commerce and trade, for the principal countries of the world.

170. WRIGHT, K. T., and BALTZER, A. C. Dairy costs and returns in Michigan. *Mich. Agr. Expt. Sta. Q. B.* 19 (2): 75-81. Nov. 1936. 100 M58S

Dairy costs and returns, 1932-1936; dairy costs and returns per unit of product, relation of production per cow to costs and returns, influence of feeding efficiency on dairy costs, and costs of operating milking machines, 1935-1936; seasonal variations in dairy costs and returns.

171. WRIGHT, K. T., and BALTZER, A. C. Dairy costs and returns 1935-36. *Mich. State Col. Agr. Ext. F. M.*, 177, 18 p. Aug. 1936. 275.29 M58I

Dairy cost records were kept on 148 Michigan herds in cooperation with the Dairy and Farm Management Departments during the 1935/36 testing year.

172. WRIGHT, N. C. An inquiry into the drinking habits of children of school age, with special reference to milk drinking. Glasgow U. Hannah Dairy Res. Inst. B. 7, 50 p. 1936. 44.9 H19B

This inquiry covers nearly 14,000 school children in Glasgow and the rural and urban districts of Ayrshire. Results show that more than half of the children did not drink milk at all, while of the remainder about two-thirds took it only once a day. The effect of the milk-schools scheme has been practically to double the frequency of milk drinking among school children.

1937

174. ABELE, C. A. Milk control in small communities on a mandatory versus a voluntary basis. Internat. Assoc. Milk Sanit. Ann. Rpt. 1936: 382-390. 1937. 44.9 In89

Advantages of a policy of encouraging voluntary production of grade A milk over mandatory compliance with milk regulations are: (1) Competition forces more producer-distributors to produce grade A milk; (2) appeal to the courts and pressure upon municipal authorities are not necessary; (3) the health officer is in a more tenable position with respect to the control of commercial and neighborhood milk.

Discussion, p. 390-391.

175. AKTIEBOLAGET ALKA. Die Alkamaschinen. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 374-375. 44.9 In8211

Discusses the advantages of the Alka milk bottle sealing machines made in Sweden.

176. AMERICAN CHAMBER OF COMMERCE IN FRANCE, INC. [A booklet about cheeses]. Paris? 1937? 16 p. 44 Am332

Contains outline of French cheese regulations and describes various cheeses produced.

177. AMERICAN MUNICIPAL ASSOCIATION. Milk control. Government regulation of the dairy industry in the United States. Pub. Admin. Serv. P. 57A, 49 p. 1937. 280.9 P96

Summary and conclusions in Milk Plant Monthly 27: 52-54. Jan. 1938. 44.9 C864

Outlines steps taken by various governmental agencies to control milk production and distribution. The success of these efforts is measured by the increased consumption of milk and the comparative safety of the milk supply, although outbreaks of milkborne diseases are still frequent.

178. ANDERSON, H. B. How to process surplus milk profitably in the small dairy plant. Milk Plant Monthly 26(9): 46, 48. Sept. 1937. 44.8 C864

Disposing of surplus milk in the form of butter, cottage cheese, and buttermilk is the method recommended, although it requires an added investment for equipment.

179. ANDES, J. Problems in the basic-surplus plan in the Philadelphia milk shed. Philadelphia, 1937. 166 p. Ref. 281.344 An2

Thesis (Ph.D.) - University of Pennsylvania.

Factors that determine the price of milk under unrestricted competition are analyzed and the need and reasons for artificial control over production are shown. The basic-surplus, or base-rating, plan is stated to be one which distributes to producers the proceeds from the sale of milk at various prices according to the market value of the milk contributed by each dairyman. Development and operation of the plan in Philadelphia are treated in detail and objections to the plan are noted.

180. ASHBY, A. W., and PHILLIPS, J. R. E. The Southern region under the Milk Marketing Scheme, 1933-36. Berkshire Farmers' Ybk. 1937: 51-52, 54, 56-59. 1937. 10 B45

If this region could be controlled as a self-contained market under the powers of the Milk Marketing Board it would have considerable advantages: it has a relatively high proportion of total yearly sales in the winter months and of liquid sales, and its manufacturing milk has a relatively high value.

173. YALE, M. W., and BREED, R. S. Comparative fairness of single can and weigh vat samples of milk for bacterial counts as a basis of premium payments to Grade A dairymen. N. Y. State Agr. Expt. Sta. B. 673, 22 p. July 1936. 100 N48

A study of the methods and the results obtained. Eleven hundred samples were collected from 178 dairies at three grade A plants at Cortland and Homer, N. Y., in Dec. 1934. In a second study in Apr. 1935, 197 samples were taken from 49 dairies at one of these plants.

181. BABBITT, M. Reid's centermould package tells a sales story. Ice Cream Rev. 20(11): 28-30. June 1937. 389.8 Ic22

The first container in the ice cream field to make use of the open window carton is described.

182. BACCHETTI, S. Les différents systèmes d'organisation de l'industrie laitière. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 86-91. 44.9 In8211

Presents data on the production of milk and cheese in Italy. Three-fourths of the dairies are small private enterprises and one-fourth cooperative.

183. BACON, L. B., and CASSELS, J. M. The milk supply of Paris, Rome and Berlin. Q. J. Econ. 51: 626-648. Aug. 1937. 280.8 Q2

A study of price and sanitation regulation of milk in the markets of these three cities. The Rome and Paris markets were visited personally for the purpose of the collection of data.

184. BARTLETT, R. W. Distribution of milk through stores and depots. Ill. Farm Econ. 24/25: 116-119. May/June 1937. 275.28 IL15

Includes data on costs of such distribution in Boston, Mass., and Danville, Ill.

185. BARTLETT, R. W., and CASKEY, W. F. Milk transportation problems in the St. Louis milkshed, with suggested solutions. Ill. Agr. Expt. Sta. B. 430: 423-470. 1937. 100 IL6S

This analysis, "indicates that substantial savings to producers, better pay to haulers, and more efficient service to distributor and to consumer can be developed in this area by certain changes in present practices." Three major adjustments are suggested: 1, Rearrangement of hauling routes, so as to reduce mileage and increase volume per load; 2, Marketing more milk through country plants; and 3, Narrowing the seasonal variations in milk production.

186. BARTLETT, R. W. The relation of international trade agreements to incomes of dairy producers. Ill. Farm Econ. 20/21: 93-97. Jan./Feb. 1937. 275.28 IL5

Includes not only the direct effects of increased importation of dairy products, but also indirect effects which result from an increase in foreign trade.

187. BAUER, H. Die Bestimmungen über die Milchpasteurisierung in Deutschland und deren Überwachung. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 307-310. 44.9 In8211

Reviews regulations pertaining to the use of pasteurization methods and equipment, and to licensing and supervisory aspects.

188. BELL, E. W. Three years under Federal milk control. Mass. U. Agr. Ext. Farm Facts 10(5): 1-2. May-June 1937. 275.29 M381Fa

Price regulation under the milk license signed March 1934 by the Secretary of Agriculture establishing Federal milk licenses in New Bedford and Fall River, Mass.

189. BELL, R. W. Extent of production of casein of different types and of casein whey in the United States. U. S. Bur. Dairy Indus. B.D.I.M. 747, 3 p. Mar. 1937. 1.9 D14Ex

Estimated quantities of skim milk used and whey produced in the manufacture of casein during the calendar year 1934, are noted.

190. BENDIXEN, H. C., and others. The milk problem; a critical study of its nutritional, hygienic, economic and social aspects. League of Nations Health Organ. B.6: 371-504. June 1937. Ref. 449.8 L47

G. J. Blink, J. C. Drummond, A. M. Leroy, and G. S. Wilson, joint authors.

Considers dairy herd management in relation to the nutritive value and production of milk; milk quality and sanitation, including their regulation; and production costs. Consumption and distribution of milk and measures adopted in different countries to counteract the effects of the economic depression on the dairy industry are discussed.

191. BERLIN. INSTITUT FÜR KONJUNKTURFORSCHUNG. Problems of milk utilization. Berlin. Inst. f. Konjunkturforsch. Weekly Rpt. Sup., 4 p. Aug. 25, 1937. 280.9 B45We

"Without basic changes in the German nourishment it is impossible to prevent fully the use of separated milk as fodder and maintain it solely for human nourishment. However, a limited expansion, even a trebling of the present human consumption of separated milk is possible, without causing disadvantages in the supply of pork and lard, especially since milk production is to be increased. In this increased consumption of separated milk (in the form of fresh milk, or mixed milk drinks--adding fruit or fruit juices--dry milk, cottage cheese or protein cheese) the consumer would receive a cheap and highly nutritive protein. This would make possible, especially in the poorer classes, a favorable distribution of the protein necessary for the maintenance of the public health."

192. BERTRAND, R. Le corporatisme agricole et l'organisation des marchés en Allemagne. Paris, Librairie Générale de Droit et de Jurisprudence, 1937. 349 p. 280.3 B462

Ch. 4 includes a subsection, "Le marché du lait," p. 255-269, which discusses the organization of the German milk trade and price plans in operation there.

193. BITZAN, R. Der einfluss wirtschaftseigener fütterung auf die rentabilität der milcherzeugung in gebirgslagen. Internatl. Dairy Cong. Wiss. Ber. (1937) 11 (1): 94-101. 44.9 In8211

A survey on the general conditions of production in the dairy district of the Styrian Enns Valley, based entirely on home-grown feeds. Shows that it is always possible to change the extensive system of dairy farming into a more intensive one. Prices are of particular importance in this respect, since the costs of production must be covered and a profit secured to the farmer.

194. BLANFORD, C. J. Competition among dealers in the delivery of milk in New York City. N. Y. Agr. Col. Farm Econ. 99: 2427-2428. Feb. 1937. 280.8 C812

Measures the amount of duplication in the delivery of milk to families in apartment houses and to stores and other wholesale customers.

195. BLANFORD, C. J. Factors affecting size of loads on retail milk delivery routes in New York City. N. Y. Agr. Col. Farm Econ. 101: 2484-2486. May 1937. 280.8 C812

Material from a study of costs of selling and delivering milk in New York City, based on data collected in 1933 under the supervision of Dr. Leland Spencer for the Division of Milk Control, New York Department of Agriculture and Markets. The amount of milk and other products taken per customer, the number of customers per mile of route, and the number of flights of stairs climbed in serving a given number of customers are among the subjects studied.

196. BOND, G. E., and HITCHCOCK, J. A. Studies in Vermont dairy farming; feed as a cost of milk production. Vt. Agr. Expt. Sta. B. 421, 38 p. May 1937. 100 V59

Feed and labor, respectively, were the two largest items of cost in milk production in the Lake Champlain Valley in western Vermont, according to a survey of 452 dairy farms for the year ending March 31, 1933. Variations in the cost of feeding the dairy herds are studied in relation to the cost of milk production. Data are included on feeding practices as they bear on milk production itself.

197. BRABANT, VAN. Le contrôle des beurres belges. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 310-314. 44.9 In8211

Describes the system of butter quality control under the Union Nationale des Laiteries Belges.

198. BREED, R. S. Conference on sanitation of paper milk containers. Milk Sanit. 6(9): 11-13. Sept. 1937. 44.8 M5929

Report of conference held at the New York Agricultural Experiment Station on July 12, 1937. A statement of the principles of sanitation to be observed in the manufacture and use of paper containers, as revised at the conference, is given.

199. BREMER, K. Die sozialen leistungen und aufgaben der milchwirtschaftlichen marktordnung. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 19-23. 44.9 In8211

Measures benefits accruing from the program to the producer, distributor, and consumer.

200. BRONSON, W. H. Problems of milk marketing regulation. Internatl. Conf. Agr. Econ. Proc. (1936): 297-307. 1937. 281.9 In82

Shows the need for regulation, and discusses Federal and State control and price systems, with specific reference to the Boston market.

Discussion, p. 307-321.

201. BROWN, A. J. Premiums for high-quality cream and butter. Ill. Farm Econ. 24/25: 115-116. May/June 1937. 275.28 IL5

Deals with premium-payment for high quality cream and butter in Minnesota and surrounding states; with the establishment in Oregon and California of a system of consumer's grades under state inspection; and with the price spread of butter on the Chicago and San Francisco markets with reference to butter score.

202. BUNDESEN, H. N. Chicago's milk supply--what does it mean? Amer. Vet. Med. Assoc. J. 90: 419-424. Mar. 1937. 41.8 Am3

Steps essential to a well-developed milk control program are discussed. The legal basis for such a program in Chicago is the Mayor Kelly Milk Ordinance, patterned after the Standard Milk Ordinance and Code of the U. S. Public Health Service, and passed in 1935. Some of the questions that have been raised in connection with the adoption and enforcement of the Code are considered.

203. BUNDESEN, H. N. Inaugurating grade A pasteurized milk in the city of Chicago. Amer. J. Pub. Health 27: 680-684. July 1937. 449.9 Am3J

Read before the Public Health Engineering Section of the American Public Health Association, New Orleans, Oct. 22, 1936.

The U. S. Public Health Service ordinance was adopted. Methods of enforcing it are brought out.

204. BURLINGAME, B. B., and FLEMING, W. C. Dairy management study, 4th annual report, San Joaquin County. Berkeley, Calif. U., Agr. Ext. Serv., 1937. 12 p. 275.29 C12En

In cooperation with the Dairy Department, San Joaquin County Farm Bureau.

Management records of 16 dairy farms for the year ending September 30, 1936, are summarized. Eight of these produced milk which was sold as creamery milk. Milk produced by the other eight was sold as market milk. Gross returns, average total income and expense per cow, average investment per cow, and average net cost of producing a pound of butterfat are discussed and shown in tables.

205. CALIFORNIA. UNIVERSITY. COLLEGE OF AGRICULTURE. AGRICULTURAL EXTENSION SERVICE. A comparison of spring and fall freshening of dairy cows, by W. Sullivan. Berkeley, 1937. 13 p. 275.2 C12Cs

U. S. Department of Agriculture cooperating.

Difference in cash income from the sale of dairy products from these cows.

206. CANADA. DOMINION BUR. OF STATISTICS. AGRICULTURAL BR. The dairy situation in Canada, Dec.-May, 1936-1937. Canada. Bur. Statis. Agr. Br. (ser. 4) Rpt. 1, 30 p. 1937. 281.3449 C163

Reviews weather and pasture conditions, milk cow numbers and milk production by provinces, as well as a general analysis of the butter and cheese position, the production and stocks of concentrated milk, and the prices of dairy products.

207. CAPSTICK, E. Utilization of buttermilk and whey in England. Internatl. Dairy Cong. Wis. Ber. (1937) 11(2): 261-265. 44.9 In8211

Discusses the disposal of buttermilk and whey on the farm and by creameries. Attempts are being made to develop markets for the dried products. Specialized whey foods are appearing, and a considerable quantity is going into balanced cattle feed.

208. CASSELS, J. M. A study of fluid milk prices. Harvard Econ. Studies 54, 303 p. 1937. Ref. 284.344 C27

Deals with factors affecting supply and demand; price plans and bargaining methods; consumption of milk and milk products; dealers margins and chain-store differentials; transportation rates and services; production responses; market areas and product zones; and a case study of Boston-New York price relations.

209. CHAIN store tax and Wisconsin's dairy industry. Natl. Butter and Cheese J. 28(12): 32. June 25, 1937. 286.85 B98Bu

The proposed bill would impose a graduated tax, based not upon the number of stores in the State, but upon the number operated elsewhere in the United States. Passage of the chain-store tax bill is opposed, as it would force many stores in Wisconsin to close and cause chain organizations to turn to other dairy States for their supplies of dairy products.

210. CHIPLETS present new idea in butter packaging. Natl. Butter and Cheese J. 28(22): 14. Nov. 25, 1937. 286.85 B98Bu

"Chiplets" are butter ready-cut in neat convenient squares and packed in two layers in an attractive carton. Use of "chiplets" eliminates waste and results in savings to the housewife of as much as 15 percent on butter bills.

211. CLAUSEN, P. Die verwertung überschüssiger milch unter berücksichtigung der herstellung von milchdauerwaren. Internatl. Dairy Cong. Wis. Ber. (1937) 11(2): 233-237. 44.9 In8211

The question of disposal of surplus milk partly resolves itself into one of the utilization of protein. The German evaporated milk industry is potentially in a position to absorb this surplus. Efforts are being made to introduce into households greater quantities of milk products with high protein content.

212. CLAUSS, W. Einführung milchwirtschaftlicher markenerzeugnisse in Deutschland. Internatl. Dairy Cong. Wis. Ber. (1937) 11(2): 330-335. 44.9 In8211

In 1934 designations of quality butter were combined into the "Deutsche Markenbutter" and the right of using and conferring it was granted to the German dairy associations. Discusses the German milk law of the same year and its applications.

213. CLAUSS, W. Entwicklung der Reichsprüfung für milch und milcherzeugnisse in Deutschland. Internatl. Dairy Cong. Wis. Ber. (1937) 11(2): 324-330. 44.9 In8211 Shows progress toward standardization.

214. CLEMENT, C. E. Country milk-receiving and cooling stations. U. S. D. A. C. 432, 59 p. June 1937. 1 Ag84C

Compares use of country stations with direct shipment; describes factors affecting the choice of location of a station; discusses quantities of milk handled, seasonal variations, time consumed in transporting milk to city markets, relation of volume handled to investment, and factors affecting operating costs.

215. CLEMENT, F. M. How the Natural Products Marketing Act operates in British Columbia. Internatl. Conf. Agr. Econ. Proc. (1936) 4: 342-355. 1937. 281.9 In82

Discusses in part the Milk Marketing Scheme of the Lower Mainland.

216. CLERKIN, P., and HOUSTON, J. The laboratory control of Northern Ireland's milk supply. Internatl. Dairy Cong. Wis. Ber. (1937) 11(2): 335-338. 44.9 In8211

Deals in part with the Milk and Milk Products Act of 1934 and includes information on grades and grading.

217. COFFEE cream in sealed bottles; restaurant chain finds system cuts spilling loss, aids control. Milk Dealer 27(2): 41. Nov. 1937. 44.8 M595

Also in Milk Flant Monthly 26: 27. Nov. 1937. 44.8 C864

Individual sealed containers capped with an aluminum hood which entirely covers the pouring edge and thus protects it against dirt, dust and handling contamination.

218. COMMISSIONER Ten Eyck's suggestions. Amer. Creamery 83(20): 733. Mar. 17, 1937. 286.85 N482

Twenty-three specific recommendations made by the Commissioner of Agriculture, New York State, to the Joint Legislative Committee for the Study of Milk Control. Emphasis is placed upon greater cooperation between producers as a class and dealers as a class in the marketing of milk, and upon some means of placing the regulation of interstate shipments of milk upon the same basis as a regulation of intrastate shipments into the New York-New Jersey marketing area.

219. CONNECTICUT MILK MARKETING PROGRAM COMMITTEE. Plans for marketing fluid milk; recommendations. Hoard's Dairyman 82: 3, 23. Jan. 10, 1937. 44.8 H65

Recommendations include establishing quotas for each producer, informing parties affected of the quotas so allotted, and having distributors inform their customers that the milk they distribute is purchased from Connecticut producers.

220. CONNECTICUT MILK MARKETING PROGRAM COMMITTEE. Principles in milk marketing. Report. Hoard's Dairyman 82: 35, 59. Jan. 25, 1937. 44.8 H65

Concludes that a more equitable distribution of the burden of the surplus must be made; that production of milk sold in Classes 3 and 4 is now carried on at prices far below the cost of production and must be discouraged; that the price of fluid milk must be adjusted from time to time; and that the price per point for butter-fat content must be raised to fair production costs.

221. CORBETT, R. B. Milk inspection in New England. Boston, New England Res. Council on Mktg. and Food Supply, 1937. 26 p. 280.344 C814

Covers for 1935 the relationships between the milk inspection work of State departments and that of towns and cities with 1,000 or more persons, according to the 1930 census, and describes the work of each as separate groups.

222. CORBETT, R. B. Milk inspection in the health districts of Massachusetts. Boston, New England Res. Council on Mktg. and Food Supply, 1937. 15 p. 280.344 C814M

Considers the organization and administration of the program and finds that it has improved milk standards in the area.

223. CRAIG, G. H., ROSKIE, J., and WOOD, V. A. The production of fluid milk in the Edmonton and Calgary milk sheds. Sci. Agr. 17: 401-419. Mar. 1937. 7 Sci2

Reviews the physical features and population of the two regions, examines the economic factors of production in their farm management relationships. Points out various cost, price and profit considerations.

224. CRAZANNES, C. DE. Les différentes organisations laitières; entreprises privées—sociétés coopératives; leurs avantages—leurs inconvénients. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 102-110. 44.9 In8211

Includes data on the utilization of milk and milk products, and discusses existing forms of dairy enterprise in France.

225. CRIPPS, J. The cost of milk rounds in relation to their density and the type of area served. *Farm Econ.* 2(6): 103-107. Apr. 1937. 281.8 F223

A survey of an English midland town (population 75,000-100,000) indicates that considerable reductions in the cost of milk rounds would be possible with the elimination of overlapping and the unification of the distributing agencies.

226. CULVER, D. C. An analysis of state milk control laws. *Calif. U. Bur. Pub. Admin. Leg. Prob.* 1, 25 p. Jan. 4, 1937. 280 C1222

A study of the composition of administering boards, the powers of boards, prices, license fees, records, funds, appeals and penalties, and the protection of producers.

Emergency measures authorizing the establishment of control boards for the milk industry were enacted by 21 states between 1933 and 1936. Most of these laws were designed to insure a stable supply of milk at prices fair to consumer and producer. The U. S. Supreme Court and the highest courts of several States have upheld the constitutionality of milk control laws.

227. CUMBER, W. J. T. T. milk handicap. *Farmer & Stock-Breeder* 51: 2688. Nov. 9, 1937. 10 F228

To increase the production of tuberculin-tested milk, an order has been issued by the British Ministry of Agriculture which provides for a payment of 4 d. per gallon for this milk above the price for other milk.

228. CUNNINGHAM, L. C. Milk marketing. *N. Y. Agr. Col. A. E.* 151, 16 p. Jan. 1937. 281.9 C81

Lists advantages and disadvantages of the classified price plan, and gives strong and weak points of state milk control.

229. DAHLE, C. D., and JOSEPHSON, D. V. Improving the keeping quality of butter with treated parchment. *Natl. Butter and Cheese J.* 28(14): 6-7. Ref. July 25, 1937. 286.85 B98Bu

Results of experiments on butter wrapped in untreated and oat-flour (Avenex) treated parchment and stored at different temperatures. From the study it is apparent that Avenex-treated parchment has a beneficial effect in retarding flavor defects.

230. DALLA TORRE, G. Amélioration de la qualité du lait et des produits laitiers. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 452-456. 44.9 In8211

Includes reference to Government regulations and organizational efforts for milk control in Italy.

231. DIETRICH, F. J. M. Die schmelzkäserei und ihre bedeutung in der modernen milchindustrie. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 4-7. 44.9 In8211

Finds that the surplus milk problem could be alleviated with the production of more processed cheese.

232. DISCUSS standardizing acidity of ice cream mixes. *Ice Cream Rev.* 20(3): 123. Mar. 1937. 389.8 Ic22

Brief report of the Dairy Manufacturing Short Course held at Oklahoma A. and M. College, February 15, 1937. Comments of W. V. Maddox on standardizing acidity of ice cream mixes and of Dr. R. C. Ross on ice cream ordinances for cities, are included.

233. DIXEY, R. N. Tuberculin-tested milk; a study of re-organization for its production. *Oxford, Agr. Econ. Res. Inst.*, 1937. 111 p. 44 D64

Includes components of the total costs of a clean herd.

234. DOWNS, P. A. Judging quality in dairy products. *Nebr. Agr. Expt. Sta. C.* 54, 44 p. Feb. 1937. 100 N27

Procedures, involving the use of score cards, for judging milk, cream, butter, cheese and ice cream.

235. DRINKER, G. Virginia dairying progresses. *Commonwealth* 4(11): 7-9. Nov. 1937. 280.8 C732

Shows expansion of the industry in the state, with improvements in production, processing and distribution.

236. DRUMMOND, W. M. The marketing of whole milk. *Canad. J. Econ. and Polit. Sci.* 3: 394-405. Aug. 1937. 280.8 C162

Presented at the annual meeting of the Canadian Political Science Association, May 1937.

Although Canadian dairy producers are aware of the need for keeping the prices of all dairy products in line with one another, they feel that the general dairy price structure must be one in which equilibrium is established by bringing "other" dairy prices in line with the present whole milk prices rather than reducing the whole milk prices to the existing competitive level of the "other" product prices. The general nature of the price making arrangements, the sharing of the producer's market, and the possibilities of narrowing the spread between farm and retail prices is discussed.

237. DUGAN, MRS. F. C. Kentucky's milk supply.

Milk Dealer 27(1): 108, 110. Oct. 1937. 44.8 M595

The results of the adoption in 1925 by the State Board of Health of the U. S. Public Health Service specifications for milk sanitary control.

238. DURYEE, W. H. How can public good will be safeguarded for the dairy industry? *Milk Plant Monthly* 26: 30-32, 34, 36. Feb. 1937. 44.8 C864

Methods for maintaining consumer confidence as affects the dairy industry include improved producer relations, public regulation, coordination of the efforts of milk promotion agencies, and market stabilization.

239. EASTLACK, J. G., and SHERWOOD, E. J. Some observations on grade "A" milk. *N. Y. Agr. Col. Farm Econ.* 99: 2419-2426. Feb. 1937. 280.8 C812

On January 4, 1912, an amendment to the Health Code made by the New York City Board of Health provided official recognition of three grades of pasteurized milk. As a result of numerous conferences held with producers, a schedule of premium payments was devised, effective January 1, 1931, which substituted for flat payments a sliding scale premium based on butterfat content.

Throughout the period reviewed, practically two-thirds of all grade A milk delivered at grade A plants contained 10,000 or fewer colonies of bacteria per cc., thereby qualifying for first premium. In every year almost 90 percent of all milk contained less than 25,000 colonies of bacteria per cc.

240. EDEL, H. New method in figuring standardization of cream and milk. *Milk Dealer* 26(8): 40-41. May 1937. 44.8 M595

Places emphasis on standardization of the fat content in milk and cream. "Standardization chart for a product of a definite fat test regardless of the final total gallonage" and "Standardization chart for a definite gallonage of a product with a definite fat test" are given.

241. EFKES, U. Die förderung der qualität bei käse-erzeugnissen. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 340-346. 44.9 In8211

Discusses in part the system of compulsory cheese tests, grading and standardization, and price scales in Germany.

242. EHRlich, C. Die durchführung der tierärztlichen milchüberwachung in trinkmilchbeständen. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 346-354. 44.9 In8211

Describes raw milk control practices in some parts of Germany.

243. EHRSTRÖM, W., and ÖSTERHOLM, B. Die hygienische überwachung der konsummilch in Helsingfors. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 354-364. 44.9 In8211

Describes the farm inspection system.

244. ELEVATING brick cheese by attractive packaging. *Natl. Butter and Cheese J.* 28(19): 6-7. Oct. 25, 1937. 286.85 B98Bu

The package is described and illustrated. It was developed by the Winnebago Cheese Company, Fond du Lac, Wis.

245. ERTEL, H. Ist die hebung des verbrauches an milch wegen ihrer bedeutung für die volksernährung erforderlich? Internatl. Dairy Cong. Wiss. Ber. (1937) 11 (3): 204-208. 44.9 In8211

Effective publicity methods should be utilized to promote increased milk consumption in view of its nutritive value.

246. ESCHE, E. Festsetzung und kontrolle von milchhandelsspannen. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 28-32. 44.9 In8211

Discusses the possibilities of ascertaining within the scope of the marketing regulations the profits obtained and of checking the equitableness of the price limits. Considers that the fixed trade margins for milk must vary from one market to another because the general conditions of the milk trade are not identical.

247. ETLING, J. L'incidence des tarifs de transport sur le prix de vente des produits agricoles en France. Paris, Librairie Technique et Economique, 1937. 106 p. Ref. 284.3 E14

Includes data for milk, butter, and cheese.

Bibliography, p. 97-104.

248. FABIAN, F. W. Ice cream; regulations and standards, manufacturing methods. Amer. Pub. Health Assoc. Ybk. (1936/37) 7: 53-59. 1937. 449.9 Am3Y

Report of the Committee on Milk and Dairy Products. Discusses regulations and standards with reference to the use of raw products in ice cream mixes; pasteurizing the ice cream mix; and grading ice cream.

Discussion by W. B. Palmer, Chairman of the Committee, p. 59-62.

249. FAIRER, J. A. The administration of the accredited milk scheme in Leicestershire. Roy. Sanit. Inst. J. 57: 547-555. Feb. 1937. 449.9 R812

Steps required in issuing a license to an applicant for accreditation and check-ups practiced are described. Several large distributors who would not contract for any milk unless it came from an accredited producer have materially aided the program. A large increase in the number of such producers is reported.

Discussion, p. 555-560.

250. FERRARI, A. L'utilisation des excédents de lait pour la fabrication des produits fromagers tels que le lait condensé, la poudre de lait, etc. [le lait stérilisé et le lait évaporé]. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 238-241. 44.9 In8211

Includes reference to the use of these products themselves.

251. FERRARI, A. Utilisation du lait écrémé et du babeurre. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 266-269. 44.9 In8211

Discusses the utilization of skim milk in bread and cheese, and as a source of milk powder and casein; the various uses of the latter and of buttermilk, whey, and lactose.

252. FINNERAN, E. J. From cow to kitchen. Nation's Business 25: 24-26, 169-172. June 1937. 286.8 N212

The milk business from the producer to the consumer is discussed and the handling of milk by a division of the National Dairy Products Corporation is briefly described. Establishment and work of the Sealtest System Laboratories, Inc., are mentioned.

253. FISHER, R. C. Changing times—a challenge to the milk industry. Milk Dealer 26: 50-52. Mar. 1937. 44.8 M595

Also in Milk Plant Monthly 26: 40-42. Apr. 1937. 44.8 C864 and Hoard's Dairyman 82: 210-211. Apr. 10, 1937. 44.8 H65

To keep up with the progress in other industrial fields, the industry must reach out in several directions. It must acquaint the public with the true facts about the fluid milk industry; work toward continued better relationships between itself and producers; through more active merchandising create and stimulate a public appreciation and demand for milk and milk products; and develop industry consciousness and cooperation, intelligently to meet changing times.

254. FLETCHER, C. W. Municipal milk control.

Hoard's Dairyman 82: 594. Nov. 10, 1937. 44.8 H65

Comments on a proposal, known as an enabling act, which was presented to the Wisconsin legislature in 1935 and 1937. The act, which failed to pass, would allow any municipality of the State, upon approval of the common council or governing body, to take over the distribution of all fluid milk within its corporate limits, manufacture dairy products, and regulate the price to the consumers of the fluid product.

255. FOSTER, A. H. \$40,337 saved in sales cost. Food Indus. 9: 18-19, 43. Jan. 1937. 389.8 F737

Explains how milk distribution economies may be effected by rearranging deliveries and consolidating routes. The use of these methods by two milk companies is cited.

256. FOUR hundred million quarts of vitamin D milk are now sold. Milk Plant Monthly 26(1): 34. Jan. 1937. 44.8 C864

In 1936 about 3 percent of the fluid milk sold in the United States was vitamin D milk. Excerpts from statements of doctors and other authorities approving and disapproving the use of this milk are quoted.

257. FREDERICK, J. H. Agricultural markets. New York, Prentice-Hall, 1937. 289 p. 280.3 F87A

Ch. 14, The milk market, discusses surplus milk, prices, agencies concerned in marketing fluid milk, marketing plans, and alternative markets for fluid milk.

258. FRIBLEY, MRS. W. E. How distributor and consumer can get together for great mutual benefit. Milk Plant Monthly 26: 32, 34, 36. Mar. 1937. 44.8 C864

Nine types of service are named which are requested of the distributor by buying housewives. Some of the opinions of consumers regarding the dairy industry and its products are discussed.

259. FRIETEMA, H. J. Productie en prijsvorming op de engelsche markt van Nederlandsche, Deensche en koloniale boter. (Production and price forming on the English market of Dutch, Danish and colonial butter.) Nederland. Econ. Inst. P. 22, 230 p. Ref. 1937. 280.9 N28

Examines the economic circumstances under which butter is produced in the Netherlands, Denmark, New Zealand, and Australia. Discusses the demand for butter and butter prices in general, and the demand for and prices of the three kinds of butter in Great Britain.

Bibliography, p. 228-230.

260. GARRAD, G. H. The accredited milk scheme in Kent. Roy. Sanit. Inst. J. 57: 602-612. Mar. 1937. 449.9 R812

Steps taken to promote sanitary milk production in Kent County, England, and those leading up to the adoption of the Accredited Milk Scheme are described. Discusses the operation of the scheme in the county, where 18 months after its inception there are 402 licensed producers of tuberculin-tested (45) or accredited (357) milk, representing more than a fifth of the total.

261. GAUMNITZ, E. W. Price maintenance of manufactured dairy products by Government purchases. Washington, U. S. Agr. Adjust. Admin., 1937. 6 p. 1.94 D14Ac

The difference between a price maintenance program and a program for the removal of temporary surpluses is discussed. Methods used by the Government in the latter program and advantages and disadvantages of a price maintenance program are pointed out.

262. GAUMNITZ, E. W., and REED, O. M. Some problems involved in establishing milk prices. U. S. Agr. Adjust. Admin. Div. of Mktg. and Mktg. Agreements. Mktg. Inform. Ser. DM-2, 227 p. Sept. 1937. 1.4 Ad47D

Deals with trends in production, farm utilization, production of manufactured dairy products, and farm prices of dairy products; aspects of fluid milk markets, including descriptive material relative to the demand for and supply of milk; the development of the general theory of milk prices (simple markets and more complex phases of milk markets); problems in pricing milk, and those encountered in prorating among producers the proceeds of sales to distributors; and public policy and the milk trade.

263. GAUNTT, E. A. The New Jersey market milk problem. *N. J. Agr.* 19(3): 3. May-June 1937. 275.28 N46

The threat of cheaper milk from outside the State, over which the State Milk Control Board has no jurisdiction, is discussed.

264. GAWLIKOWSKI, I. T. Propaganda des milchverbrauchs unter mitwirkung aller volksschichten. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 212-217. 44.9 In8211

Suggests public relations policy to increase milk consumption.

265. GENIN, G. La production mondiale de caséine. *Lait* 17: 605-608. June 1937. 44.8 L143

Uses of casein for plastics, adhesives, paper, textiles, and in foods, medicines, and insecticides are indicated, with the extent of casein production and trade.

266. GERMANY. REICHSMINISTERIUM FÜR ERNÄHRUNG UND LANDWIRTSCHAFT. The present state of the German dairy industry... Compiled by G. Reichart... Hans Merkel... O. Vopelius. Kempten i. Allgäu, Deutsche Molkerei-Zeitung, 1937? 281.344 G31

Issued also in German with title: Die Deutsche milchwirtschaft in der gegenwart. 281.344 G31D

Abstract in *Lait* 18: 260-262. Mar. 1938. 44.8 L143

Prepared for the use of dairy experts who took part in the 11th World's Dairy Congress. Presents a comprehensive survey of conditions in the German dairy industry. Chapters and sections discuss production, treatment, distribution of milk and dairy products, organization and duties of marketing associations, and the economic importance of the dairy industry.

267. GERMANY'S milk control. *Farmer and Stock-Breeder* 51: 2276. Sept. 21, 1937. 10 F228

Milk marketing in Germany is under complete state control. Under the scheme the whole country is divided into 18 regions and producers are required to send their milk to the nearest creamery. Prices to producers are fixed and workers on dairy farms are paid according to the output per animal per day. Transportation problems are few and costs are low because of state ownership of the railways.

268. GHEZZI, E. L'organisation du service de distribution du lait. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 384-388. 44.9 In8211

Discusses the Italian law of 1929 regulating the distribution of milk, distribution procedures and costs, and milk containers. Norms were established by governmental decree in 1933 for the packing and selling of butter.

269. GIBSON, L. A. Century of dairying in Canada. *Amer. Creamery* 83(21): 768-769. Mar. 24, 1937. 286.85 N482

An account by the Dairy Commissioner, Department of Agriculture, Winnipeg, Manitoba, of the grading of cheese, butter and cream.

270. GILLET, R. L., and FOSTER, D. H. Range of milk prices in northern and southeastern New York, 1935. *N. Y. Agr. Col. Farm Econ.* 102: 2502-2503. June 1937. 280.8 C812

Table I gives quantity of milk received from producers, arranged by average price at plant, northern and southeastern counties and the State, June and November 1935. "In June, nearly all the milk in the southeastern group brought a price to producers higher than any but the top prices for very small quantities in the northern group. In November, somewhat similar relationships prevailed, though the contrasts are less marked."

271. GIROUX, L. Amélioration de la qualité du lait et des produits lactés. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(2): 364-371. 44.9 In8211

Includes information on French milk control regulations.

272. GOCKEL, A. Die verpackung der deutschen milchwirtschaftlichen erzeugnisse. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 388-404. 44.9 In8211

Shows packing methods and quantities for milk, concentrated milk, cream, dried milk, casein, butter, and cheese

273. GOLDING, N. S. Latest developments in the packaging of cheese. *Wash. State Col. Inst. Dairying Proc.* 10: 1-5. Mar. 1937. 44.9 W27

Classifies types of cheeses, outlines some cheese defects, and discusses the use of a valve when packing cheese in cans.

274. GOLTE, W. Die versorgung des rheinisch-westfälischen industriegebietes mit trinkmilch unter besonderer berücksichtigung des rohmilchproblems. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 36-40. 44.9 In8211

Deals with the milk supply of this area and marketing control. Considers milk production costs in relation to prices.

275. GOOD management doubles volume of Elmwood creamery in three years. *Natl. Butter and Cheese J.* 28 (17): 12-13. Sept. 10, 1937. 286.85 B98Bu

Rapid growth of the business is attributed to the development of a good and dependable market for 92 and 93 score print butter. The creamery formerly manufactured only tub butter.

276. GOSNEY, G. F. Marketing of milk products in England, Wales and Scotland. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 40-42. 44.9 In8211

Discusses marketing facilities in the first three decades of the century and the various schemes under the Agricultural Marketing Acts of 1931 and 1933. Shows the need for building up a manufacturing industry in dairy products in Great Britain.

277. GRADING of ice cream becomes reality in Memphis where Health Department expects to attain goal of grading in 5 years. *Ice Cream Rev.* 21(3): 58, 97, 98. Oct. 1937. 389.8 Ic22

Provisions and operation of the Frozen Dessert Ordinance whose sanitary regulations went into effect July 1, 1937.

278. GT. BRIT. FOOD COUNCIL. Report... to the President of the Board of Trade on costs and profits of retail milk distribution in Great Britain. London, H. M. Stationery Off., 36 p. 1937. 280.344 G795

This study, made because of the tendency of retail milk prices to rise since inception of the Milk Marketing Schemes, shows that, in general, distributors profits are not large. Freeing retail prices from any controls is suggested as a possible method of effecting some reduction in distributive margins.

279. GT. BRIT. MILK MARKETING BOARD. Milk Marketing Scheme, 1933, as amended 1936 and 1937. London, 1937. 35 p. 280.344 G794M

Scheme under the Agricultural Marketing Act, 1931, regulating the marketing of milk.

Milk price control, England and Wales.

280. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Milk acts, 1934 and 1936. Arrangements for increasing the demand for milk within the area of the Milk Marketing Board for England and Wales by publicity and propaganda (Third scheme). London, H. M. Stationery Off., 1937. 4 p. 280.344 G792Ar

The campaign is estimated to cost £60,000 and is to be carried out by newspaper advertising, special publicity, and the use of posters.

281. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Milk policy. Presented by command of his Majesty, July, 1937. London, H. M. Stationery Off., 1937. 8 p. (Parliament. Papers by command Cmd. 5533) 281.344 G79

Notes the beneficial effects of control exercised by the Milk Marketing Boards. Because of the improved price situation, greater stress is placed on measures designed to promote the increased consumption of liquid milk and the provision of a purer milk supply. These are outlined, with an indication of the facilities required for their operation.

282. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Milk; report of Reorganisation Commission for Great Britain. *Gt. Brit. Min. Agr. Econ. Ser.* 44, 362 p. 1936. 280.9 G792

Also in *Gt. Brit. Min. Agr. J.* 43: 840-845. Dec. 1936. 10 C79J; *Soc. Serv. Rev.* 18: 10-12. Jan. 1937. 280.8 S01

As a means to the development and control of a national milk policy based upon the expansion of the liquid milk market, the establishment of a permanent Milk Commission is recommended. Modifications in the operation of the Milk Marketing Schemes are proposed, with continuance of the producers' Boards.

Suggestions are made regarding the fixing of milk prices, financial assistance by the British Government, and transport and distribution practices. Improvements in milk production, uniformity in grades and grading, efficiency of manufacture, and stimulation of consumption are further objectives considered.

283. GT. BRIT. SCOTTISH OFFICE. Arrangements for increasing the demand for milk by the supply of milk at reduced rates in schools within the area of the Scottish Milk Marketing Scheme, 1933. Edinburgh, H. M. Stationery Off., 1937. 3 p. 280.344 Sc032

This modification of the scheme applies only to milk actually consumed in schools.

284. GRIMES, M. Legislation and proposed bacterial standards for milk and ice cream. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(2): 372-374. 44.9 In8211

Such standards should be based on methods that will give the maximum bacterial count in relation to the total bacterial count obtained. Shows the necessity for control legislation in the Irish Free State.

285. HAMMERBERG, D. O., and SULLIVAN, W. G. An economic analysis of the charges for transporting milk to Connecticut markets. A preliminary report on the project: "Supply and transportation of milk in Connecticut." Storrs, Conn. Agr. Expt. Sta., 1937. 26 p. 280.344 C763

This report is based upon records on 237 routes supplying milk dealers in the important milk-consuming areas in Connecticut. Results show that rates charged by distributors were higher than those of independent truckers and that a revision of routes is needed.

Establishment of prices for milk at farms rather than at markets would not solve the rate problem. Control of transportation and transportation rates by associations of milk producers is suggested as a solution to the problems involved.

286. HANSON, F. E. Texas, once famed for longhorn steers, now making longhorn cheese. *Natl. Butter and Cheese J.* 28(19): 10-11. Oct. 10, 1937. 286.85 B98Bu

Tells briefly of the development of the cheese industry in Texas and discusses production problems. A table showing cheese production, 1928-1935, is included.

287. HARVEY, W. C., and HILL, H. Milk products. London, Lewis, 1937. 388 p. 44 H26M

Separate chapters describe the processes of manufacture, with desirable methods of control, for ice cream, cream, butter and margarine, cheese, condensed milk, evaporated milk, and dried milk. These subjects are considered primarily according to their public health significance, so that hygienic factors are given some prominence in the general treatment. Subsidiary milk products, such as fermented milks, lactalbumin, lactose, whey foods and casein, are discussed in the final chapter, together with some new uses for milk.

288. HAUCK, E. L'importance économique et l'organisation de l'industrie laitière allemande. *Lait* 17: 789-793. July/Aug. 1937. 44.8 L143

Describes efforts made to stabilize the dairy industry in Germany, especially as regards milk and butter prices, and developments in the use of milk and skim milk for manufacturing byproducts.

289. HEEBINK, G., and HENDERSON, H. O. Feeding for profit in milk production. *W. Va. Agr. Expt. Sta. C.* 74, 28 p. Sept. 1937. 100 W52

Feed cost is shown to be the most important single item in the cost of producing milk on West Virginia dairy farms.

290. HENDERSON, R., and HAYES, G. G. Milk production costs and profitability on twenty Devon and Cornwall farms. Newton Abbot, Devonshire, Eng., Seale-Hayne Agr. Col. Dept. Econ., 1937. 40 p. 281.344 S01

The period covered by this survey is from 1934-35 to 1936-37. In the first part are shown constitutional aspects of the farms, investments, production and disposal of milk, distribution of calves, and average costs per cow and per gallon of milk. In the second part profits of 19 of the farms are tabulated and discussed.

291. HENRY, A. La politique du beurre et des oeufs en Belgique. Brussels, Comité Central Industriel de Belgique, 1937. 69 p. 281.172 H39P

An account of the marketing of butter and eggs and the Government's policy with respect to them. Concludes that there is not an overproduction of butter and that consumption could be increased by a reduction in price. Claims that margarine does not enter into competition with butter and that the quality of butter could be improved by production in factories rather than on the farm.

292. HERRMANN, L. F. Milk distribution costs in West Virginia: III. A study of the costs incurred by 67 producer-distributors in the Charleston, Huntington and Parkersburg markets for a twelve-month period during 1935-1936. *W. Va. Agr. Expt. Sta. B.* 282, 26 p. June 1937. 100 W52

Results of the study show the average cost to be \$1.94 per cwt. Labor and truck expense were the most important items of cost, amounting to 93 c. and 45 c. respectively. The tendency toward higher costs among plants than among producer-distributors was due to higher wages, additional costs of pasteurization, greater administrative costs, and a larger investment in real estate and equipment.

293. HERRMANN, L. F., and BOWLING, G. A. Milk production costs in West Virginia: II. A study of the costs incurred by 36 farms in the Huntington and Charleston markets in 1935-1936. *West Va. Agr. Expt. Sta. B.* 281, 27 p. Morgantown, 1937. 100 W52

In the Huntington herds total costs were \$2.20 per cwt. and in the Charleston herds, \$2.26. High costs were due to less than average production per cow, too heavy feeding of grain that was too high in protein in relation to roughage fed, and high costs for use of buildings and other items besides feed and labor. "Producing ability of the cows kept, together with their management for high production, had so strong an influence on costs of production as to obscure the effect of size of herd."

294. HERZ, H. Künstliche eingriffe in dem milchmarkt und die preisgestaltung. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 42-47. 44.9 In8211

Considers objectives and effects of milk marketing control.

295. HIBBEN, R. C. Decade of progress in the American ice cream industry. *Refriger. Engin.* 34(1): 18-20, 28, 39, 54, 56, 58, 64. July 1937. 295.9 Am32J

Considers the utilization of milk for ice cream and sanitary requirements in the manufacture of ice cream.

296. HINDE, W. Improvement program for quality milk. *Hoard's Dairyman* 82: 53. Jan. 25, 1937. 44.8 H65

A program for the "Quad-City" market, which includes Moline, Illinois. It provides for the grading of milk and penalizes the farmer whose score is less than 170 points (300 possible).

297. HOCHLEITNER, A. Planwirtschaftliche massnahmen auf dem gebiete der österreichischen milchwirtschaft. *Internat. Dairy Cong. Wiss. Ber.* (1937) 11(3): 47-50. 44.9 In8211

Outlines postwar conditions in Austria leading to milk marketing control.

298. HOMÉN, A., and HOLMSTÉN, E. Ein rückblick auf die resultate der exportbutterprüfung in Finnland 1913-1935. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 374-379. 44.9 In8211

Export butter has been tested for keeping quality since 1896, and since 1913 a standardized control system has been in effect.

299. HORAK, K. Die beförderung von rohmilch in tanks. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 334-335. 44.9 In8211

Greater volumes can be handled in tanks which are easily cleaned. The quality of tank-hauled milk is superior as evidenced by bacterial counts. Savings in freight charges and the low cost of truck maintenance are additional advantages.

300. HOWELL, J. P., EVANS, H. E., and GRIFFITHS, J. D. Recent costs of milk production in Wales. Welsh J. Agr. 13: 41-68. Jan. 1937. 10 W46

For 23 months ending September 1936, shows feed, labor, depreciation, and miscellaneous costs of milk production.

301. INDIANA. Laws, statutes, etc. Milk control law. Milk production and marketing declaration of policy. An act concerning the production and distribution of milk, creating a Milk Control Board and defining its powers and duties. Indianapolis, 1937. 34 p. 280.344 In2

Duties of the Board include supervision and regulation of the industry in the State, establishment of reasonable trade practices, and the setting up of schedules of prices to be paid to producers.

302. INNIS, H. A., ED. The dairy industry in Canada. Toronto, Ryerson Press, 1937. 299 p. Ref. 281.344 R83

Partial contents: Pt. 2, The development of the dairy industry in Canada, by J. A. Ruddick; Pt. 3, Problems of the Canadian dairy industry, by W. M. Drummond; Pt. 4, Problems of a specialized area - the Fraser Valley, by R. E. English; Pt. 5, American tariff policy and the Canadian dairy industry, by J. E. Lattimer and H. A. Innis.

Includes developments and costs of the milk, butter, and cheese industries, marketing, market outlets, and attempts at artificial price-raising.

303. INTERNATIONAL ASSOCIATION OF MILK SANITARIANS. COMMITTEE ON METHODS OF IMPROVING MILK SUPPLIES IN SMALL COMMUNITIES. Report. Internatl. Assoc. Milk Sanit. Ann. Rpt. 1936: 347-381. 1937. 44.9 In89

L. C. Frank, Chairman of Committee.

A survey of the present status of milk control of American municipalities of 1,000 to 10,000 population for the year 1935. Gives information on organization, administration, and operation of the programs.

304. *INTERNATIONAL UNION OF LOCAL AUTHORITIES. Conférence internationale, Paris, July 5-11, 1937. II. Regulation and control of milk, 1937. 180 p.

305. JACKSON, H. C. The problem of paying for milk in whole milk creameries. Natl. Butter and Cheese J. 28 (8): 34-35. Apr. 25, 1937. 286.85 B98Bu

Payment for milk, on a straight fat basis, after allowances on returns, is discussed. When the skim milk is to be dried, equitable payment involves three factors: the yield of powder in relation to the test of milk received, the added expenses involved in handling low testing milk, and the price received for powder.

306. JACOB, A. W. Some economic aspects of the price paid to producers for butterfat in Oklahoma, 1926 to 1935, inclusive. Okla. Agr. Expt. Current Farm Econ. 10(4): 68-71. Aug. 1937. 100 Ok4

A study of the spread between the butterfat price received by producers in Oklahoma and in the United States, including factors responsible for the improved price received by Oklahoma producers as compared to other producers over the United States.

307. JÄRVIK, M. Über die förderung der qualität von milch und butter in Estland. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 379-383. 44.9 In8211

Contains information on milk and butter control. The payment of premiums for first class products has made for quality improvement.

308. JENSEN, J. Die qualitätskontrolle der exportfirmen mit dänischer exportbutter. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 384-387. 44.9 In8211

The exporting firms cooperate with the State in this program.

309. JOHNSON, O. M. Trends in ice cream costs. Ice Cream Rev. 20(6): 73. Jan. 1937. 389.8 Ic22

From Internatl. Assoc. Ice Cream Mfrs. Spec. B. 53, "Trends in Ice Cream Costs."

A much larger portion of the expense dollar of the ice cream manufacturer was required for product cost in 1935 than in several previous years. Two factors which have contributed to this are: (1) increase in product cost, and (2) increase in volume of production. Charts showing product cost, distribution cost and total cost exclusive of product cost are included.

310. JOHNSON, S. M. Elasticity of supply of milk from Vermont plants. II. Factors affecting deliveries in Cabot and Marshfield, Vt., 1920-1935. Vt. Agr. Expt. Sta. B. 429, 40 p. Dec. 1937. 100 V59

Milk production in these two towns in the Boston milkshed was positively correlated with milk and feed prices, expressed as milk-feed price ratios, for about three preceding years.

311. JOHNSON, T. D., and MCCORD, J. E. Dairy farm organization and management in southeastern Pennsylvania. Pa. Agr. Expt. Sta. B. 350, 82 p. May 1937. 100 P381

A survey of Chester County farms covering the period 1930-31, similar to studies made in 1912 and 1922. Shows effects of different types of organization on incomes and relation of management and feeding of the dairy herd to profits, and includes data on costs and milk marketing and prices.

312. JUDKINS, H. F. Problems yet to be solved in the dairy industry. Food Indus. 9: 710, 737. Dec. 1937. 389.8 F737

An overall picture of the dairying situation, with specific regard to milk and cream, evaporated milk, ice cream, and cheese. Production and quality angles are stressed. Economic aspects of the industry, such as milk-buying plans and bottling costs, are touched upon.

313. KIEFERLE, F., and SEUSS, A. Einfluss der luftdurchlässigkeit der einwickelmaterialien auf die qualität der käse. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 398-401. 44.9 In8211

Wrapping soft cheese with papers of high air permeability had a favorable effect on quality.

314. KIEFERLE, F., and SEUSS, A. Der einfluss des butterfarbboles und der einwickelpapiere auf das autoxydative verderben der butter. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 129-133. 44.9 In8211

Exposure to light and the use of vegetable butter-coloring hasten oxidative changes at the surface of butter. Parchment paper (treated), cell-glass, and metal foils gave good protection against light.

315. KJAERGAARD-JENSEN, N. Verschiedene milchhygienische massnahmen in Dänemark. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 387-393. 44.9 In8211

Includes milk tests, with price deductions for poorer quality milk, sanitary controls, and the application of regulatory laws and decrees.

316. KLANG, J. Der anteil der energiekosten an den gesamtbetriebskosten in frischmilch- und verarbeitungsbetrieben, buttereien und käsereien Österreichs. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 430-435. 44.9 In8211

Presents data on power and fuel costs in Austrian dairies.

317. KOESTLER, G. Das verbandswesen und sein einfluss auf die hebung der güte von milch und milcherzeugnissen. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 401-405. 44.9 In8211

Cites the Swiss Emmental cheese factories as an example of the benefits deriving from organization for quality improvement.

318. KOLLMORGEN, W. The milk industry of Nebraska. Nebr. Conserv. B. 15, 92 p. Dec. 1937. 279.9 N272B

An attempt is made to evaluate Nebraska's position in the national dairy picture and dairy conditions in the state. Price considerations are included in a discussion on fluid milk, as well as those of its quality and uses. Milk cow improvement and care, management of pastures, bovine tuberculosis eradication, and tariffs as regards dairy products are other topics dealt with.

319. KROG, A. J., and DOUGHERTY, D. S. Scoops as a source of contamination of ice cream in retail stores. Amer. J. Pub. Health 27: 1007-1009. Oct. 1937. 44.9 Am3J

Recommends that ice cream scoops and other dispensing utensils be kept on a dry rack protected from flies, dust, and other sources of contamination, instead of in water, and rinsed with either hot or cold tap water after and before each use.

320. KUGLER, A. Entwicklung und organisation der milchwirtschaft im Burgenland. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 56-59. 44.9 In8211

Includes information on milk production and marketing in this Austrian province.

321. KURMANN, O. Erfahrungen mit offener und geschlossener milchförderung und milchlagerung. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 338-341. 44.9 In8211

Closed transport and storage of milk are factors for quality maintenance and better dairy management.

322. LAMPRECHT, F. Die verwendung von magermilch, insbesondere milcheiweiss, in der menschlichen ernährung. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 270-273. 44.9 In8211

The use of milk protein in bread and various dough products, sausages, crackers, soups, breakfast foods, and cocoa is discussed.

323. LASNET DE LANTY, J. Le paiement du lait à la matière grasse. Agr. Prat. 67: 1528-1529. Oct. 30, 1937. 14 J82

Methods of payment according to three grades of milk—rich, medium, and poor—are discussed, with proposed modifications to promote better quality milk production.

324. LAUTERBACH, A. H. Milk market regulation. New Brunswick, 1937. 6 p. 275.2 N46L

Discusses price fixing and regulatory policies from the standpoints of practicality and constitutionality.

325. LAYSON, S. V. Regulation and control of milk supplies. Milk Dealer 26(5): 36-39, 102-104. Feb. 1937. 44.8 M595

An account of the regulation of sanitation in the milk industry in Illinois, past and present. The Milk Pasteurization Plant Law of 1925 empowered the Department of Public Health to adopt and enforce minimum requirements for the construction, equipment and operation of milk pasteurization plants. Enforcement of this Act was placed in the Division of Sanitary Engineering.

326. LININGER, F. F. A glimpse of the dairy industry abroad today. Penn State Farmer (n. s.) 2(4): 113, 119, 128, 130-132. Jan. 1937. 276.8 P38

Report of observations on a trip to Europe in the summer of 1936 including material on milk price control under British marketing schemes.

327. LININGER, F. F., and COWDEN, T. K. Marketing milk. Pa. Agr. Expt. Sta. B. 352, 23 p. Oct. 1937. 100 P381

Shows the percentages of pasteurized milk in the Philadelphia and Pittsburgh milksheds and the Pennsylvania area of the New York City milkshed sold as fluid milk, and the maximum range in milk prices within a county.

328. LIZEE, D. L'utilisation des excédents de lait pour la fabrication de produits laitiers tels que laits condensés, poudre de lait, etc. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 248-249. 44.9 In8211

States that in France there is (as of December 1936) no chance for further utilization of surplus milk for the manufacture of condensed milk or rich milk powder.

329. LIZEE, D. Utilisation du babeurre, du lait écrémé et du petit-lait. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 273-274. 44.9 In8211

Considers the utilization of buttermilk and skim milk in powder form, of the latter as a source of casein, and of whey products. Points out their extensive use as feed in France.

330. LOHR, L. Der einfluss der wirtschaftseigenen fütterung auf die rentabilität der milcherzeugung. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(1): 134-142. 44.9 In8211

Shows the relation of positive net returns to the use of home-produced feeds on 18 farms in lower Austria.

331. LOHSE, T. Die kontrolle der zum export bestimmten dänischen molkereierzeugnisse. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 410-413. 44.9 In8211

Discusses state standards and regulatory procedures applying mainly to export butter.

332. LONZA-WERKE ELEKTROCHEMISCHE FABRIKEN G. m. b. H. Lochscheibe und trinkhalm als werbefaktoren für den milchverbrauch. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 228-229. 44.9 In8211

Discusses consumer preference in regard to milk in bottles with perforated caps, and advances in the manufacture of "straws" used with them.

333. LOOMIS, A. M. The stability of the dairy industry. Amer. Cream and Poultry Prod. Rev. 84: 628-631. Sept. 8, 1937. 286.85 N482

Includes consumption data and reference to stability as affected by price mechanism.

334. LOVELAND, E. H. The interest of the dairy industry in efficient production. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Abs. of Material presented at Ann. Conf. for Dairy Plant Oper. 16: 77-90. Nov. 4-5, 1937. 44.9 V593A

Milk production costs can be lowered by keeping records of the production and feed cost of individual cows, using this information as a basis for culling low-producing cows, feeding the good cows more efficiently with both roughage and grain, and breeding for high-producing cows.

335. LUCAS, I. E. L'importance des conditions hygiéniques de l'étable en tenant compte des limites imposées par la rentabilité. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(1): 222-223. 44.9 In8211

Discusses costs of producing milk in relation to costs for improvements. Finds that a price differential for the milk produced, and also some State subsidy, would be necessary to meet the extra expenses entailed.

336. MCBRIDE, C. G., and others. Milk marketing problems. J. Farm Econ. 19: 494-507. May 1937. 280.8 J822

Abstracts of papers read before a Round Table Session at the 27th Annual Meeting of the American Farm Economic Association, Chicago, Ill., Dec. 29, 1936, and prepared by Leland Spencer.

Contents: Possibilities and limitations of public control in milk marketing, by C. G. McBride, p. 494-496; Plant operating efficiency in the market milk industry, by J. M. Tinley, p. 496-500; The supply and utilization of milk in Pennsylvania, by T. K. Cowden, p. 501-505; Competitive market forces and their effect upon fluid milk consumption, by W. P. Mortenson, p. 505-507.

337. MCDOWALL, F. H. Milk supplies to cheese factories. New Zeal. J. Sci. and Technol. 19: 145-164. Ref. Aug. 1937. 514 N48

Considers the problem of providing an equitable distribution of the net proceeds of the sale of cheese among the individual suppliers; the relationship between butter and cheese factories, and the difference in the guaranteed price per pound of butterfat as between butter and cheese factories; and the effect of prices on the general practices of breeding cows to supply milk to cheese factories.

338. MCDOWALL, F. H. Payment for milk for cheese-making. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 413-414. 44.9 In8211

Suggests payment on the cheese yielding capacity of the milk based on estimation of fat and casein. Termed the "Costed" cheese system, it allows for variations in the cost of manufacturing cheese from milks of different composition.

339. MACGILLIVRAY, J. C. Dairy products situation in Germany. *Canada. Dept. Trade & Com. Com. Intel. J.* 57: 631-635. Oct. 9, 1937. 286.8 C16

An account is given of the organization of the dairy industry, production and consumption of dairy products, prices, and foreign trade. A table showing Germany's relative position in 1936 among the principal world producers and consumers of dairy products, is included.

340. MCGRATH, A. E. Responsibility of the field superintendent to the cream quality program. *Natl. Butter and Cheese J.* 28(5): 31-32. Mar. 10, 1937. 286.85 B98Bu

"Read before Educational Conference of the Creamery Industry of Missouri and all Midwestern States, University Missouri, February 1937."

Discusses the subject from the standpoint of the field superintendent who is in charge of a territory largely made up of cream-buying stations, and states that it is the duty of the superintendent to solve the quality problem by lining up his stations on a grading program.

341. MACLEOD, A. The milksheds of New Hampshire; a study of their characteristics and relationships. *N. H. Agr. Expt. Sta. B.* 295, 11 p. Apr. 1937. 100 N45

Gives the location of producers and their markets; estimates of sales by type of distributors for the markets operating under the State Milk Control Board; and the relationship of local and out-of-state markets to one another.

342. MAJER, G. Die verwertung der molke als pferdefrank. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 274-275. 44.9 In8211

Whey may be used to advantage as a drink for horses and is willingly taken by them after they have become accustomed to it. Feeding tests on a large scale have shown that, on an average, 34 liters of whey are equal to one kilogram of oats per day.

343. MALITZ, H. Einrichtungen in milchwirtschaftlichen betriebe zur herstellung von verkaufsfertigen packungen für milch und milcherzeugnisse. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 406-409. 44.9 In8211

Discusses the paraffined "Perga-package" as a container for milk, cream, and cottage cheese, and paper containers in general.

344. MANHART, V. C. Some economic aspects of a milk quality program. *Milk Dealer* 26(9): 70. June 1937. 44.8 M595

The Dairy Department of Purdue University recommended a milk quality control program for general use in Indiana, the provisions being that all milk be graded at the plant by taste and smell; that milk objectionable in flavor or of high acid content should be rejected or paid for at a lower price; and that milk satisfactory on the basis of flavor should be subjected to the methylene blue and sediment tests at least twice a month, with flavor being determined daily. Results of this plan are given.

345. MANN, A. L., and others. Profitable dairy farming. *Conn. Agr. Col. Ext. B.* 247, 28 p. 1937. 275.29 C76B
A. R. Merrill, J. S. Owens, and P. L. Putnam, joint authors.

Principal causes of high costs in producing milk are high feed costs, disease, labor inefficiency, low producing cows and too small a farm business. Solutions to these problems are discussed.

346. MARCHI, A. La vente du lait et des autres produits laitiers et l'établissement d'un prix acceptable pour le producteur, le détaillant et le consommateur. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 59-62. 44.9 In8211

Discusses the effects of marketing control of dairy products in Italy.

347. MARQUARDT, J. C. Observations on European cheese production. *Natl. Butter and Cheese J.* 28(3): 25-26, 28. Feb. 10, 1937. 286.85 B98Bu

Tells briefly of conditions in Germany, England, and Ireland and of the manufacture of Hollander and Tilsiter cheese in Germany. Quality is not the main item in stimulating the importation of cheeses into the United States. Leading factors governing cheese imports are low manufacturing costs in foreign countries and lack of manufacturing knowledge of certain varieties.

348. MASS. MILK CONTROL BOARD. Report... relative to the sale of "surplus milk," so called, and other matters relating to the production and sale of milk, Nov. 30, 1936. 39 p. Boston, 1937. 280.344 M383R

The report recommends: 1. The Milk Control Board should be provided with authority to enforce regulations with respect to inspection, labeling, and grading of milk. 2. The Milk Control Law should be amended to clarify its language. 3. Adequate provision should be made for more frequent checks on testing and weighing of milk. 4. An adequate protective statute, providing for the inspection of cream, should be enacted. 5. An appropriation for state-wide advertising of milk, to expand consumption and to educate consumers, would be helpful to the dairy industry and to the inhabitants of the Commonwealth.

349. MATTHEWS, T. A. Regulating the sale of milk. *Ill. Munic. Rev.* 16(3): 51-55, 58. Mar. 1937. Lib. Cong. Deals in part with certain enactments of the Illinois Legislature, and court decisions.

350. MENKE, H. H. Die restmilchfrage in der deutschen marktregelung. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(2): 278-282. 44.9 In8211

Resolves the problem into one of effective utilization of skimmed milk. In addition to commonly accepted uses of this product and whey, the Germans are introducing casein more extensively in the human diet. When precipitated by pectic substances the casein may be used as an egg-albumen substitute in the baking industry. As sodium caseinate it is used in various foods, especially breakfast foods.

351. MERCHANT, I. A. Needs of national and state unity in the sanitary control of dairy products. *Amer. Vet. Med. Assoc. J.* 90: 398-402. Mar. 1937. 41.8 Am3
Shows the forces operating for and against uniformity in this field, particularly in the application of regulations and methods.

352. METZGER, M. J. Buying plans—ratio between cream fat and whole milk prices. *Internatl. Assoc. Milk Dealers Prod. Sect. Proc.* 30: 34-39. 1937. 44.9 In8
Deals principally with the buying plan in the Chicago market.

353. MIDLAND AGRICULTURAL COLLEGE. DEPT. OF AGRICULTURAL ECONOMICS. Investigation into the economics of milk production; a comparison of milk production during the two winters of 1935-36 and 1936-37. *Sutton Bonington, Loughborough, England, Aug. 1937.* 26 p. 281.344 M585

The winter 1936-37 was not so advantageous to milk production as the winter 1935-36 on 48 English farms for which data were obtained. Weather conditions plus poor quality hay resulted in a lower average yield per cow and, in spite of an increase in the average herd size, a lower total output.

The price of purchased feeding stuffs increased and the value of home-grown feeds was increased in proportion. The average delivered cost per gal. was 12.14d. in the winter 1935-36 and 13.35d. in the following one. The pool price per gal. was 0.42d. higher in the latter.

354. MILK distribution proposals. *Planning*, 106, 15 p. Sept. 21, 1937. 280.8 P693

Deals with the British Government's long-term policy with regard to insuring a safe milk supply, lowering distribution costs, and increasing consumption.

355. MILK regulation in New York. *Yale Law J.* 46: 1359-1370. June 1937. L9 Y2

Discusses the New York Milk Control Law, 1933, revised in 1934, as a basis of depression milk regulation. Finds that the inability of the State to control out-of-state milk severely limited the effectiveness of the price-fixing provisions. Suggests ways and means of improving the milk market structure in the State.

356. THE MILK (Special Designations) Order, 1936, with respect to accredited milk. *Royal Sanit. Inst. J.* 57: 624-670. Apr. 1937. 449.9 R812

Papers by W. G. Savage, F. W. Medlock, H. F. Long, and W. T. Price, p. 625-657, and discussion, p. 658-670.

These papers, read at a conference held in London on Jan. 28, 1937, discuss the manner of administration of the Order with the object of securing greater uniformity.

357. MILLER, S. L. Farmers' and consumers' cross-fire hurts earning power of dairy industry. *Annalist* 50: 780, 812. Nov. 12, 1937. 284.8 N48

Includes data relating to farm income from milk compared with that for other commodities, 1929-34, per capita consumption of dairy products, 1925-35, production of dairy products, 1927-36, and consumer incomes and prices of dairy products, 1927-37. Dairy company revenues and cash farm income are charted.

358. MOFFETT, W. K. Milk control in Pennsylvania. *Intl. Assoc. Milk Sanit. Rpt.* 1936: 165-170, 172-175. 1937. 44.9 In89

Discusses the application of the Act of 1935 regulating milk in the State.

Discussion, p. 175-180.

359. MORIK, R. Die milchwirtschaftliche marktordnung Norwegens. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 62-65. 44.9 In8211

Shows status of milk, cheese, and butter marketing control in Norway.

360. MORTENSEN, M., and others. Standardization of Iowa butter. *Iowa Agr. Expt. Sta. B.* 358: 377-405. May 1937. 100 Io9

D. F. Breazeale, C. H. Meyer, and M. B. Michaelian, joint authors.

Project 109 of the Iowa Agricultural Experiment Station to determine the extent of variation in the chemical composition of butter manufactured in the various creameries, and to assist the creameries to manufacture butter of a more uniform chemical composition.

361. MURRAY, K. A. H. Milk consumption. *Oxford, Agr. Econ. Res. Inst.*, 1937. 64 p. 281.344 M96

The first section of this study summarizes the existing analyses of the factors affecting milk consumption. The second and third sections deal with a survey of the consumption of milk and milk products carried out in Oxford during the summer of 1936, the results of which suggest that not income alone, but indifference, habit, and lack of appreciation influence consumption.

362. NATIONAL MILK PUBLICITY COUNCIL, INC., LONDON. Publicity for milk in England. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 231-235. 44.9 In8211

Covers the work of the Council and contains reference to milk-in-schools and milk-in-industry schemes, general and special organization, press advertising and poster displays, films, exhibitions, agricultural shows and milk bars, and editorial publicity.

363. NETHERLANDS. *Internatl. Inst. Agr. Gov. Measures Affecting Agr. Prices* 3(10): 48-58. 1937. 281.8 In8

Legislation on dairy products.

364. N. Y. (STATE) LEGISLATURE. COMMITTEE TO INVESTIGATE THE MILK CONTROL LAW. Report, March 22, 1937. Albany, J. B. Lyon, 1937. 31 p. 280.344 N485

Report based on testimony given at twelve public hearings, 1937. Prices, loss of fluid milk market by New York State producers, and breakdown of enforcement of the law in the metropolitan area are among subjects discussed.

365. NICHITA, G. Mise en valeur de la surproduction laitière—la poudre de lait. *Internatl. Dairy Cong. Wiss. Ber.* (1937) 11(3): 235-244. 44.9 In8211

Includes sections on the utilization of milk powder for human and animal nutrition, and in the manufacture of food.

366. NOBLE, K. F. Market for condensed milk in British Malaya. *Canada. Dept. Trade & Com. Com. Intel. J.* 57: 464-466. Sept. 11, 1937. 286.8 C16

Shows sweetened and unsweetened condensed milk imports into British Malaya, of British and western European origin, during 1935-May 1937; prices, packing, terms, and duties. The per capita consumption for the population of 4,500,000 is one tin of 14 ounces per month.

367. 100 PER CENT paper container operation featured by Risdon in re-entering Detroit milk market. *Milk Dealer* 26(8): 42-43. May 1937. 44.8 M595

A wholesale plant operating 100 percent on paper containers made by one fully-automatic machine in the plant in quart, pint and half-pint sizes for use, as required, for milk, chocolate milk, sour cream, butter, cottage cheese, and ice cream. The dairy cites nine advantages in the use of its containers.

368. OREGON. DEPT. OF AGRICULTURE. New law. *Oreg. Dept. Agr. B.* 63, 3 p. 1937. 2 Or3

Comments briefly on and notes provisions of the new Oregon law which provides for the compulsory grading of dairy products.

369. OREGON MILK CONTROL BOARD. Summary of present legal opinions of milk control legislation, by S. B. Weinstein. *Portland*, 1937. 10 p. 280.344 Or33

As a result of the decisions of the United States Supreme Court and the courts of last resort of many of the States, the following legal principles may be adduced: 1, A state may require licenses or permits for the sanitary production and distribution of milk and milk products; 2, A state may adopt standards for milk and milk products in the interests of public health; and 3, A state may adopt legislation providing for reasonable regulation of the production, manufacture, sale and distribution of fluid milk and in such legislation provide for the fixing of minimum wholesale and retail prices.

370. ORR, T. Milk control; an abridgement of the British report to the Conference of the International Union of Local Authorities at Paris in July, 1937. *Local Govt. Admin.* 3(2): 78-84. June 1937. U. S. Dept. Labor Libr.

General review of the control of milk production and marketing in Great Britain, with emphasis on health and sanitary aspects.

371. PABST, W. R., JR. Butter and oleomargarine: an analysis of competing commodities. *New York, Columbia U. Press*, 1937. 112 p. 281.344 P11

Discusses the development of the industries, restraint of competition between butter and oleomargarine, the relationship of these commodities in the light of recent theoretical work and through the application of modern statistical technique, and the question of further taxation of oleomargarine.

372. PACKARD, A. Selling milk under Federal license. *Nation's Agr.* 12(11): 1-2, 11-12. Oct. 1937. 280.82 B89

Advantages and disadvantages of the Federal Milk Marketing Agreement and License in the Boston market.

373. PARKER, C. V. Butter manufacturing costs in country and city plants. *Econ. Annal.* 7(4): 52-55. Aug. 1937. 281.8 Ec72

Relative costs of butter manufacture in Canadian cities, towns and villages; includes costs of gathering cream.

374. PHELPS, C. S. Dairying in the St. Lawrence Valley. Rur. New Yorker 96: 137. Feb. 13, 1937. 6 R88
Beginning about 1850, when cheese factories were being introduced, until about the turn of the century, factory cheese-making was the leading branch of dairying in this area. At present, milk production for New York and Boston markets predominates.

375. PHILPOTT, H. G. A history of the New Zealand dairy industry, 1840-1935. Wellington, Govt. Printer, 1937. 413 p. Ref. 281.344 P54

Grading and branding of dairy products, legislation dealing with the industry, including the dairy industry acts, dairy produce regulations and the Primary Products Marketing Act, and packing of dairy produce are dealt with in separate chapters. A section on statistics relating to the industry is included.

376. PITTSBURGH Health Department shuts off producers of high count milk. Milk Dealer 26(12): 82. Sept. 1937. 44.8 M595

In an enforcement of a city ordinance of 1910 which provides that milk at receiving stations must not exceed a bacteria count of 500,000 per c.c., 2,000 dairy farms were recently excluded; 1,800 of these, however, have been reinstated because of reduced bacteria count in their milk. The 10,000 dairy farms under the direct supervision of the Pittsburgh Department of Public Health, located within a radius of 125 miles of the city, are visited twice yearly, or oftener if necessary, by a corps of 30 approved inspectors in the employ of the milk companies.

377. POLLARD, J. Milk and dairies legislation. Roy. Sanit. Inst. J. 57: 716-720. May 1937. 449.9 R812

Discusses the British Milk and Dairies Order, 1926, the Milk Act, 1934, and the Milk (Special Designations) Order, 1936, and what effect they have had in improving the milk supply.

Discussion, p. 720-723.

378. POST, J. W. Standardization of cream has improved quality in Midwestern States. Amer. Creamery 84: 502-503, 512. Aug. 11, 1937. 286.85 N482

Facts and figures are presented showing degrees of improvement in cream quality as a result of standardization of "field" grading.

379. POTTS, R. C. A champion of Gov't butter grading. Amer. Prod. Rev. 85(2): 52-54. Nov. 10, 1937. 286.85 N482

Address, Convention of Minnesota Creamery Operators and Managers Association, Minneapolis, Minnesota, October 13, 1937.

Describes briefly improvements of the proposed U. S. Standards and tells of the value of government butter grading service to the producer and consumer.

380. POTTS, R. C. Government butter grading. Washington, U. S. Bur. Agr. Econ., 1937. 6 p. 1.9 Ec724G

Excerpts from addresses at Fond du Lac, Wis., Oct. 7, 1936 and at La Crosse, Wis., Nov. 11, 1936.

Tells briefly of the scope of the government grading service, how the butter grading service is used and shows how government grading aids in quality improvement.

381. POTTS, R. C. Objectives of government butter grading. U. S. Bur. Agr. Econ. Agr. Situation 21(4): 16-17. Apr. 1, 1937. 1 Ec7Ag

382. PRESCOTT, M. S. Milk control in New York. Holstein-Friesian World 34: 10, 13, 20. Jan. 9, 1937. 43.8 H742

Statement presented to recent Four State Conference in New York City.

Producers have been materially benefited by milk price control. Suggests changes in present legislation, including establishment in each retail market of three classes of milk. More control over inter-State milk is needed and prices for surplus should be based on what the milk is actually worth for manufacturing purposes.

383. PRINGLE, C. Milk prices in England and Wales. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 65-70. 44.9 In8211

Considers producers' and retail prices in relation to the operation of the Milk Marketing Scheme, and the extent of Government assistance under it.

384. QUINTUS, P. E. A system for quantity discounts on milk and cream. J. Farm Econ. 19: 636-639. May 1937. 280.8 J822

A retail and wholesale price plan, suggested by Edwin S. Elwell of the Northland Milk and Ice Cream Company, is described. Under this plan milk would be sold at a fixed price per quart regardless of the number of units taken, plus a service charge which decreases on a per unit basis as the size of the sale increases. The plan, if put into effect, would lower consumer prices without reducing producer prices or the net returns to dealers.

385. REDUCING milk bottle losses. Amer. Creamery 84: 294-297. June 30, 1937. 286.85 N482

The use of premiums on collection of bottles, community educational programs, milk bottle exchanges, the universal bottle and paper container, are ways and means suggested to minimize milk bottle losses.

386. REINART, A. Organisationsformen der molkereien in Estland, deren vor- und nachteile. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 120-124. 44.9 In8211

Private and cooperative dairies.

387. REPORT of the milk program committee. Holstein-Friesian World 34: 1274-1275, 1284, 1286, 1297-1299. Dec. 25, 1937. 43.8 H742

Report of a special committee of the Holstein-Friesian Association of America, appointed to make a study of the difficulties attending the marketing of Holstein milk and to develop a program designed to eliminate such difficulties with particular reference to enlisting members in a drive to legalize standardization of milk by dealers. Recommends use of a trade-mark for Holstein milk, development of uniform State milk standards that will fit all natural milk from all dairy breeds, and that milk sold at retail should be labeled as to fat content in three classifications, with at least 1 c. per qt. spread between classifications.

388. RIDDELL, W. H. Milk standard and solids-not-fat problem. Hoard's Dairyman 82: 103, 122-123. Feb. 25, 1937. 44.8 H65

There is a growing controversy as to the fairness of many State and municipal standards concerning the fat and solids-not-fat content of milk. Present standards, in many cases, were put in effect when too little was known of the behavior of the solids-not-fat content of milk and therefore a greater degree of tolerance is essential in enforcing these standards today.

389. RIEDEL, P. Verwertung von magermilch, buttermilch und molken. Internatl. Dairy Cong. Wiss. Ber. (1937): 11(2): 285-289. 44.9 In8211

Skim milk is used for human food in Germany chiefly in the form of cottage cheese, cottage cheese with cream (20 to 40 percent fat solids), and as sour milk curd for manufacturing other cheese.

390. RIEDEL, W. Über verpackung von butter. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 152-156. 44.9 In8211

Deals with the causes for the changes in stored butter, various wrapping materials and their standardization in Germany and the effect of light on butter. Recently produced types of parchment paper which are made impervious to ultraviolet rays by addition of special substances proved superior to other foils.

391. ROBERTS, J. B., and PRICE, H. B. Milk marketing in Lexington. Ky. Agr. Expt. Sta. B. 377: 263-301. Dec. 1937. 100 K41

Gives information on organization and development of the market, sources of market milk, price mechanism, milk consumption and its variations, surplus and shortage, market competition, and dealers' price spreads. Analyzes the use of milk by pasteurizing plants, which sell only about one-half of the bottled milk of the city and distribute a relatively large proportion of manufactured products, besides handling most of the surplus milk.

392. ROBINEAU, M. La vente du lait et des produits dérivés et l'établissement d'un prix acceptable pour les producteurs, les détaillants et les consommateurs. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 70-74. 44.9 In8211
Hauser, Barus, and Baudoin, joint authors.
Shows need for improved milk marketing regulation in France.
393. RODGERS, J. B., and others. Distribution and costs of steam, electrical power, and labor in representative Idaho creameries. Idaho Agr. Expt. Sta. Res. B. 12, 35 p. Ref. 1936. 100 Id1
D. R. Theophilus, H. Beresford and J. L. Barnhart, joint authors.
Summary in Amer. Creamery 83: 864. Apr. 14, 1937.
This bulletin lists in detail the equipment used in two creameries, records results of boiler tests, and charts use of steam generated in both plants and what it was used for. Tables show power consumption of each piece of equipment, per hour, per day, and per month, and the cost of steam, electricity, and labor per unit of product manufactured.
394. ROLLE, M. Die frischmilchkontrolle in den städtischen Lettlands. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 421-424. 44.9 In8211
Sets forth requisites for an effective milk control program in the country. Licenses for the sale of milk are issued only upon inspection of the dairy farms supplying it.
395. RUDDICK, J. A. The story of dairying in Canada. Canad. Geog. J. 15: 40-55. July 1937. 470 C162
Outlines the origin and development of the industry and gives production and trade data.
396. SADDINGTON, C. W. The dairy industry in Canada; butter, cheese. Canad. Chartered Accountant 29: 441-449; 31: 204-211. Dec. 1936, Sept. 1937. Libr. Cong.
Shows that an increased output for individual factories and a greater yield of butterfat per cow are needed to lower the costs of butter production and make possible larger exports. Calls for more intensive cheese production to reduce costs, equalization of exchange rates to offset the advantage of other countries because of depreciated currencies, and reduction of transportation costs as regards long railway hauls.
397. SAITNER, M. Die in Deutschland seit der machtübernahme durch den nationalsozialismus getroffenen organisatorischen massnahmen zur qualitätsverbesserung der butter. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 428-436. 44.9 In8211
Discusses butter controls and standards based on official regulations.
398. SAITNER, M. Massnahmen, die in Deutschland seit der machtübernahme durch den nationalsozialismus zur qualitätsverbesserung der käse getroffen wurden und solche, die in vorbereitung sind. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 436-444. 44.9 In8211
Considers the effects of operations of the milk marketing associations, the introduction of quality controls, and the payment for milk according to quality on the program, and the utilization of such means as consultant and information services, tests, and special training procedures to further it.
399. SANDO, G. Propaganda-arbeit für gesteigerte verwendung von molkereierzeugnissen in Dänemark. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 247-251. 44.9 In8211
Describes the organization of an intensive public relations program in Denmark the results of which are presented on the basis of retail milk sales.
400. SAUER, H. Erfahrungen über die herstellung von frischem und getrocknetem molkeneiweiss. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 289-291. 44.9 In8211
Suggests methods of reducing costs of manufacturing whey protein, which have proved a drawback in its utilization.
401. SAVINI, E. De la fabrication, du commerce et de l'uniformisation des procédés d'analyse de la poudre de lait. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 14-15. 44.9 In8211
Deals in part with the designation of the product, fat content, moisture content, weight, and adulteration.
402. SAVINI, E. La fabrication, le commerce et l'uniformisation des méthodes d'analyse des fromages fondus. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 7-8. 44.9 In8211
Deals in part with the designation of the fat content, salt content, and weight.
403. SCHILLING, K. Einrichtungen in milchwirtschaftlichen betrieben zur herstellung verkaufsfertiger flaschenmilch. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 409-415. 44.9 In8211
Considers the glass bottle with aluminum cap the best type of milk container. The paper container and cardboard bottle cap have only limited uses in Germany.
404. SCHNEIDER, G. Verwertung von entrahmter milch zu frischkäse. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 291-295. 44.9 In8211
Consumers can buy nutritive value in cottage cheese for about one fourth as much as the equivalent value would cost in eggs. Discusses packaging and marketing of the product. States that increasing consumption to 500 grams per household per week would take care of the surplus of skimmed milk and bring a better price for milk to the producer.
405. SCHO. Germany's milk industry. Hamburgisches Weltwirtschaft Arch. B. 3: 278-281. July 15, 1937. 280.8 H17
Amendments to the Milk Law, enacted on July 20, 1933, have paved the way for the organization of the German dairy industry in its present-day form. This is described, with information on production, consumption, marketing, and trade. Improvements and expansion are contemplated through the operation of the Four Year Plan. Increased utilization of skimmed milk powder and casein is noted.
406. SCHULTHEISS, F. Fluid milk market stabilization in Wisconsin. Milk Dealer 26(7): 44, 80-84. Apr. 1937. 44.8 M595
Price regulation under the law due to expire July 1, 1937.
407. SCHULTHEISS, F. Is a State grading system for cheese profitable? Natl. Butter and Cheese J. 28(4): 41. Feb. 25, 1937. 286.85 B98Bu
A system for grading cheese exclusively by State employed graders is advocated. Such a system would curb unfair methods and practices in the grading and marketing of cheese and would do away with the production of poor quality of cheese.
408. SCOTT, J. M. Dairy industry in Florida. Milk Dealer 27(1): 50, 108. Oct. 1937. 44.8 M595
Dairying in Florida differs from that of many other States in that about 90 percent of the milk produced is bottled and sold as fluid milk. Prior to 1932 large quantities of milk were shipped into Florida from other States. However, since 1932 very little milk has been brought into the State. Florida dairymen are now supplying the entire demand for fluid milk. This development is described, with statistical data. A good start in the production of milk products is reported, too.
409. SCOTTISH MILK MARKETING BOARD. Scottish milk marketing scheme, 1933. Incorporating amendments made in the scheme up to and including the 30th August 1937. Edinburgh, H. M. Stationery Off., 1937. 32 p. 280.344 Sco34
This is the text of the scheme providing for the regulation of milk marketing in Scotland.
410. SMITH, B. L., and WHITBY, H. Milk marketing before and after organization: a study in central Somerset. Oxford U. Agr. Econ. Res. Inst. 1937. 56 p. 280.344 Ox2
Reports the results of two surveys, 1931-32 and 1934-35, and shows that the effect of the Milk Scheme on producers has been favorable.

411. SPENCER, L. The milk situation in New York, January 1937. N. Y. Agr. Col. Ext. B. 365, 19 p. Jan. 1937. 275.29 N48E

A study to show how the prices received by New York farmers for milk compare with other prices, and to show the trends in the general price level and in the supply and demand for milk.

412. SPENCER, L. Prices of basic commodities and milk. N. Y. Agr. Col. Ext. Farm Econ. 99: 2411, 2418. Feb. 1937. 280.8 C812

Because fluid milk prices and other prices fixed by committees change more slowly than prices which are determined by competitive trading over a broad field, prices paid farmers for market milk usually lag when competitive prices rise or fall. In 1933, however, milk prices rose as promptly as basic commodity prices because milk prices were arbitrarily lifted through price fixing by the Milk Control Boards of New York and New Jersey.

413. SPENCER, L. A question of milk premiums. Amer. Prod. Rev. 85: 254-255. Dec. 29, 1937. 286.85 N482

Discusses the relation of surplus to price premiums for market milk over the manufacturing value of milk in New York.

414. * SPENCER, L. References on milk marketing and public control of the milk industry. N. Y. Agr. Col. A. E. 191, 7 p. 1937. 281.9 C81

415. SPENCER, L. Safeguarding your bottle of milk. Amer. Prod. Rev. 85: 100-104. Nov. 24, 1937. 286.85 N482

Review of what has been done to promote fair prices and a safe, high quality product, especially from a regulatory standpoint.

416. STEEN, H. The dairyman's market. Successful Farming 35: 59-62. Feb. 1937. 6 Su12

Consumption of dairy products has kept step with production in this country because of the efforts of the producer and distributor. Consumer education and research are also responsible for expansion of the dairyman's market.

417. STOCKER, W. Die bezahlung der milch nach fettgehalt und qualität. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 448-450. 44.9 In8211

In Germany, milk payments are based upon a fat content of 3.50 to 3.70 percent. For one-tenth percent fat above or below these values a sum of 0.2 Pf. is added or deducted. Maximum limits for fat content have been fixed: 4.20 percent for round cheese milk and 4.50 percent for milk for industrial purposes, beyond which the surplus of fat is not paid for. A standard fat content of 3.40 percent is considered the basis for fresh milk; a similar procedure regarding payment prevails in case of higher or lower fat content. Milk for cheesemaking is priced according to results of fermentation tests. A premium is paid for milk in the excellent grade, and a price deduction is made for poorer milk.

418. STUURMAN, S. Die bedeutung der stallhygiene für die qualität der milch unter berücksichtigung der rentabilität. Internat. Dairy Cong. Wiss. Ber. (1937) 11(1): 235-240. 44.9 In8211

Payment for milk should be based upon its sanitary quality; and this is dependent upon stable conditions, but even more upon methods used by the farmer.

419. SVADSTROM, K. F. Zyklische veränderungen der milchproduktion und ihre ursachen. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 74-79. 44.9 In8211

Shows the scope of marketing regulation in Sweden. Notes cyclical changes in milk production, consumption, and profits, and in the number of cattle.

420. SWEDEN. Internat. Inst. Agr. Govt. Measures Affecting Agr. Prices 3(10): 61-66. 1937. 281.8 In8
Contains section on Milk Marketing Scheme.

421. SWITZERLAND. Internat. Inst. Agr. Govt. Measures Affecting Agr. Prices 3(10): 66-68. 1937. 281.8 In8

Milk, cheese and butter prices.

*Not examined.

422. SZANYI, I. Ein weg zur erzielung des mehrverbrauches von milch und seine wirkung. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 253-257. 44.9 In8211

Cites the economic advantages of increased milk consumption and outlines a public relations program to this end.

423. TAFFOUREAU, M. La technique de la manipulation et le transport du lait. Internat. Dairy Cong. Wiss. Ber. (1937) 11(3): 363-368. 44.9 In8211

Contains information on the types, use, and costs of milk containers.

424. TEMPLETON, H. L., and SOMMER, H. H. Wrappers for processed cheese. J. Dairy Sci. 20: 231-238. Ref. May 1937. 44.8 J822

Reports results of investigations on the use of metal foil as a wrapper for Cheddar cheese. Metal foils are stated to be superior to other types of foils. For general use with all kinds of cheese, tin foil is probably more satisfactory than aluminum foil.

425. TEN CENT package of butter introduced at Bridgeport, Connecticut. Natl. Butter and Cheese J. 28(11): 28. June 10, 1937. 286.85 B98Bu

The "Butterstick," a new sales package designed to meet the demands of the small apartment dweller, is described. The retail price of this item remains constant at 10 c., while the quantity varies with the market price of butter.

426. THOMSEN, L. C. Methods of paying for milk in the whole milk plant powdering skim. Natl. Butter and Cheese J. 28(20): 14-16. Oct. 25, 1937. 286.85 B98Bu

One problem is the equalizing of payments to producers who possess high testing herds and those having herds with low tests. Another is what it costs to produce powdered skim milk, and whether the cost is less if higher grade milk is used.

427. *TINLEY, J. M. Economic considerations in fixing resale prices of milk. Calif. Agr. Expt. Sta. Giannini Found. Mimeog. Rpt. 57, 9 p. Apr. 1937. 281.9 G34M

428. TINLEY, J. M. Economic considerations in milk-stabilization plans. Giannini Found. Mimeog. Rpt. 62, 4 p. 1937. 281.9 G34M

Reviews California milk control legislation, discusses the dangers of price fixing and says some form of public control over milk marketing appears to be necessary in the interest of producers and consumers.

429. TOBEY, J. A. Federal and State control of milk prices. Chicago, Internat. Assoc. Milk Dealers. 1937. 42 p. 284.344 T55

Discusses the constitutional status of milk marketing laws in the light of court decisions.

430. TOBEY, J. A. Recent court decisions on milk control (1934-1937). U. S. Pub. Health Serv. Rpts. 52: 1038-1044. July 30, 1937. 151.65 P96

These relate to pasteurization, control of bovine tuberculosis and brucellosis, limiting the inspection area, inspection fees, denial of a license, milk containers, price-fixing of milk, chocolate milk standards, and filled milk laws.

431. TOMA, R. Le contrôle du lait dans les zones de montagne d'Italie. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 451-452. 44.9 In8211

Distance between farms, feed conditions, and availability of funds are factors limiting the application of the program.

432. TRIMBLE, C. S. The problem of regulating butter. Amer. Creamery and Poultry Prod. Rev. 83: 382, 384-388. Jan. 13, 1937. 286.85 N482

Problems relating to the manufacture and uses of butter are considered in the light of Federal and State regulation. Control policies bearing on the use of raw materials such as sour cream, are similarly dealt with.

433. UMBRECHT, J. Zur überwachung der milch auf fälschungen durch fremdwasserzusatz. Internat. Dairy Cong. Wiss. Ber. (1937) 11(2): 460-464. 44.9 In8211

Suggests organization of the methods of control on uniform lines and collaboration between food chemist, dairy expert, and veterinarian.

434. UMBRECHT, J. Zusammenarbeit zwischen lebensmittelpolizei und milchwirtschaft. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(2): 456-460. 44.9 In8211

The possibility of improved relations in this regard is indicated by the operation of milk and butter quality controls.

435. UNITED Kingdom. Internatl. Inst. Agr. Govt. Measures Affecting Agr. Prices 3(10): 58-61. 1937. 281.8 In8

Includes section on Milk Marketing Scheme with operating statistics.

436. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Federal milk control and its administration, by O. H. Hoffman, Jr. Washington, 1937. 5 p. 1.94 D14Fed

A talk made before the National Association of Milk Control Boards which discusses the Agricultural Marketing Agreement Act of 1937 and the administration of its provisions relating to milk.

437. U. S. AGRICULTURAL ADJUSTMENT ADMIN. A survey of milk marketing in Milwaukee. U. S. Agr. Adjustment Admin. DM-1 (Mktg. Inform. Ser.), 119 p. 1937. 1.4 Ad47D

The major purpose of this study was to determine the feasibility of centralizing milk distribution in Milwaukee. Plans for a unified system of processing and delivery large enough to serve the needs of the community are described in detail. The proposed system would be non-competitive and would be operated as a municipal enterprise.

437-A. U. S. BUR. OF AGRICULTURAL ECONOMICS. Charts & tables. Production and consumption of manufactured dairy products, changes in seasonal variation of butter production, cost of manufacture and distribution of butter and cheese, prepared by E. E. Vial. Washington, 1937. 16 p. 1.9 Ec752Pc

438. U. S. BUR. OF AGRICULTURAL ECONOMICS. Charts. Relation of butter production and purchasing power of consumers to the price of butter, prepared by E. E. Vial. Washington, 1937. 9 p. 1.9 Ec752Rb

439. U. S. CONGRESS. SENATE. COMMITTEE ON AGRICULTURE AND FORESTRY. Purchase and sale of farm products. Hearings, Cong., 1st sess. on S. 848, March 2, 3, 10, and April 6, 1937. Washington, 1937. 141 p. 280.3 Un37Pur

Includes discussion on dairy products.

440. U. S. DEPT. OF LABOR. Analysis of condition, quality, and size requirements of United States and State standards for fresh fruits and vegetables and legal standards for dairy products. Washington, 1937. 18 p. 158.241 Anl

Prepared by J. C. Jackson, H. A. Mereness, E. D. Riley and T. E. Wilson. State and federal standards for milk, skim milk, cream, butter, sweetened condensed milk, evaporated milk, plain ice cream, fruit or nut ice cream, whole-milk cheese, and skim-milk cheese, are presented in graphic form in chart X (facing p. 18)

441. U. S. FEDERAL TRADE COMMISSION. Report... on the sale and distribution of milk and milk products, N. Y. milk sales area. Letter ... transmitting a report ... with respect to the sale and distribution of milk and milk products in the New York sales area and the operations of nationwide processors and distributors of milk and milk products with headquarters in New York City. 75th Cong, 1st sess. H. Doc. 95. 138 p. 173 F32Mi

Reviews milk regulations and shows duplication of farm inspection in the N. Y. milkshed.

442. U. S. FEDERAL TRADE COMMISSION. Summary report on conditions with respect to the sale and distribution of milk and dairy products, in response to H. Con. Res. 32, 73d. Congress, 2d sess. approved June 15, 1934. 75th Cong., 1st Sess., H. Doc. 94. 37 p. 1937. 173 F32Mi

Deals in part with price practices, health regulations and inspection rules, milk settlements, gross spreads or margins per quart, and unit delivery costs and their allocation.

443. VARNEY, H. R. This milk problem. Vt. Agr. Col. Ext. C. 95, 89 p. 1937. 275.29 V59c

Contains material on costs of milk handling, on factors affecting the price of milk, and on flat-price buying.

444. VERGE, J., and THIEULIN, G. L'utilisation des laits tuberculeux. Le Lait 17(164): 348-354. Apr. 1937 44.8 L143

Also in Rev. Gén. de Méd. Vét. 45: 713-721. Dec. 15, 1936. 41.8 R323.

A discussion of the Decree of January 24, 1934 on this subject.

445. VERMONT. SPECIAL MILK INVESTIGATIONAL COMMITTEE. Vermont milk report. Montpelier, 1937. 29 p. 281.344 V59

Facts are reported regarding the production of milk in Vermont over the previous ten years, how it was disposed of, and what was received for it. Conditions in the markets, competitive conditions, and what has been accomplished by organization in the state are set forth.

446. VIAL, E. E. Changes in the seasonal variation of butter prices and market receipts of butter. N. Y. Agr. Col. Ext. Farm Econ. 100: 2456-2463. Mar. 1937. 280.8 C812

Although butter prices tend to be low in the summer when the seasonal peak in production occurs, and high in the fall and winter when production is low, the seasonal variation in prices has declined during the last 55 years. The author studies the factors underlying this circumstance, and discusses the relationship of butterfat prices to the prices of feed grains and meat animals.

447. VIRGINIA. DEPT. OF AGRICULTURE. Protection of the milk supply in the state of Virginia. Va. Dept. Agr. and Immigr. B. 350: 23-24. July 1937. 2 V81B
The principal requirements of the State Milk Law are briefly stated, and methods pursued in its enforcement are discussed.

448. VIRTANEN, A. I. Die wirtschaftseigene milchproduktion. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(1): 180-187. 44.9 In8211

Deals with the possibility of a self-sufficient milk production based on home-produced feeds, and cites the economic efficiency of this method and experiences in Finland in the course of eight years. Discusses the quality of the milk and milk products in that country.

449. WAGNER, R. Die vorteile des einheitsmilchflaschenkastens. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 368-369. 44.9 In8211

Standardized as to size and construction the new zinc-coated milk bottle cases are convenient and economical to use.

450. WEST, G. A., and SPENCER, L. The supply and sales of milk and cream in Rochester, N. Y., 1930-1936. N. Y. Agr. Col. Farm Econ. 101: 2480-2484. May 1937. 280.8 C812

A study of this milk market area including tables giving number of farms under Rochester inspection, the average daily supply of milk and cream, the average daily sales of milk and cream by Rochester milk dealers, the number of dealers selling and quantity of special milk products sold all in November of each year. The number of dealers selling each grade of milk and cream, and the daily consumption of milk and cream per capita in Rochester are given also.

451. WHEELER, L. A. British agricultural policy—some selected lessons. J. Farm Econ. 19: 264-271. Feb. 1937. 280.8 J822

Deals in part with the Milk Marketing Scheme.

452. WHEELER, L. A. The dairy industry and the trade agreements program. Washington, U. S. Bur. Agr. Econ., 1937. 7 p. 1.9 Ec753D

The dairy industry of the United States is on a small import basis and is thus ordinarily in a position to be protected against the influence of the foreign dairy situation through moderate import duties. The best prospects of keeping the industry on this basis are to be found in an increase in consumption resulting from higher purchasing power, particularly in the urban centers, and, secondly, in minimizing the competition from increased production of dairy products in the sections of the country that have been producing the major export crops. It is toward these objectives that the trade agreements program is directed.

453. WIEDEMANN, U. Marktordnung und Allgauer milchwirtschaft. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 79-81. 44.9 In8211
Shows how the dairy industry in this district has been benefited by milk marketing control.

454. WINNING, R. J. Consumer preference of batch vs. continuous frozen ice cream. Ohio State U. Col. Agr. and Domestic Sci. Dairy Technol. Conf. Mater. Presented 1937: 55-56. 44.9 Oh35M
Ice cream frozen in the Vogt continuous freezer was preferred by 107 out of 158 consumers mainly because it was found smoother, richer, and more filling.

460. ALLRED, C. E., and SANT, P. E. Regional differences in the farm price of milk cows [and] dairy products, Tennessee and United States. Tenn. Agr. Expt. Sta. Rur. Res. Ser. Monog. 68, 41 p. Jan. 20, 1938. 173.2 W89Co
Data used in this study are district prices in Tennessee computed as arithmetic averages from statistics in the U. S. D. A. Division of Crop and Livestock Estimates in Tennessee, and prices for individual states computed similarly from U. S. D. A. Yearbooks and mimeographed supplements. Factors influencing price variations are discussed.

461. AMERICAN Dairy Science Association approves standardization; report of committee on a standardization of market milk. Holstein-Friesian World 35: 779-780, 902. Aug. 6, 20, 1938. 43.8 H742

The Association approves and recommends in principle: 1, Legalization of the alteration of the fat content of market milk by mechanical standardization, provided that fat content be stated on the label directly or by grade designations based on fat content; 2, Legalization of the minimum for the solids-not-fat of milk at 8.15 percent. It considers legalization of the mechanical standardization of the solids-not-fat content of market milk by the addition of dried or condensed milk inadvisable at this time.

462. ANDERSEN, L. F. Dairy industry in Britain and Denmark. Queensland Agr. J. 49: 346-362. Apr. 1938. 23 Q33

Notes the influence of special British schemes on the cleanliness and quality of the milk; the standardization of butter and efforts to eradicate bovine tuberculosis in Denmark.

463. ARNOLD, L. A glass milk bottle with narrow pouring lip and minimum drip. J. Milk Technol. 1(6): 5-14. Sept. 1938. 44.8 J824

Describes a standard pouring machine for milk bottles, and a standard technique for determining the behavior of milk poured from glass bottles. Measures the degrees of bacterial contamination obtained from bottles of different finishes. Reports experiments with a new type of finish involving recessed angles to interrupt the adhesive force of the glass surface. The pouring lip was reduced to 7/16 inch from the top of the bottle so that there was a minimum of milk drip during the pouring.

455. WINSAUER, K. Internationale regelung der herstellung und des handels von schmelzkase. Internatl. Dairy Cong. Wiss. Ber. (1937) 11(3): 8-13. 44.9 In8211
Considers the characterization of the product and its origin, the indication of fat content and net weight, maximum water content, additions to the cheese, and the problem of brands.

456. WRIGHT, K. T., and TAYLOR, H. B. 1936 dairy costs. Mich. State Col. Agr. Ext. F. M. 205, 17 p. Aug. 1937. 275.29 M581

A project whose purpose was to determine the physical and financial requirements of producing milk and butter-fat, and to study the relation of practices to costs and returns. Cost records were kept on 123 Michigan herds averaging 12.9 cows.

457. WYNNE, S. W. Analysis of milk control in New York State. Milk Dealer 26(6): 62. Mar. 1937. 44.8 M595

An account of milk price fixing under the Milk Control Law, and operations of the Milk Control Board.

458. YARNELL, R. Country delivery routes. Ice Cream Rev. 20(6): 54. Feb. 1937. 389.8 Ic22

Reports costs of delivering ice cream over country routes of the Yarnell Ice Cream Co., Searcy, Ark.

Includes a table showing truck costs per mile for the period 1929-1936.

459. YOUNG, J. L. The New Jersey official grades for milk. N. J. Dept. Agr. C. 284, 8 p. 1937. 2 N46C

Outlines the provisions of the regulations covering the production and distribution of milk under the New Jersey official grades.

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464. BACKMAN, J. Enforcement of government price fixing. Harvard Business Rev. 16: 154-167. 1938. 280.8 H262

Refers to the Paterson Butter control in Australia (1926-34) as an illustration of voluntary cooperation and includes a summary of butter control measures in the Netherlands.

465. BACKMAN, J. Government price-fixing. New York, Pitman, 1938. 304 p. Ref. 284.3 B12G

Refers briefly to butter and milk price-fixing experiments in several foreign countries and in the United States by the U. S. Agricultural Adjustment Administration.

466. BAKER, O. E. Population prospects and agricultural implications. Amer. Butter Inst. Proc. 30(1): 1-8. Ref. 1938. 44.9 Am33P

Includes discussion of the per capita consumption of dairy products.

467. BAKKEN, H. H. The cost of manufacturing and marketing evaporated milk. Rio, Wis., Rio J., 1938. 23 p. 281.344 B17

Costs cover maintenance, depreciation, taxes, rent, interest, insurance, transportation, labor, power, canning materials, and supplies. A large volume of milk delivered from as many as 400 to 800 farms in Wisconsin must be brought into one plant to keep down overhead costs and maintain maximum efficiency. The value added by manufacture as measured by the difference between the unit cost of raw material and the price of the finished product is greater than it is for either butter or cheese. Where plants are located in seasonal milk production areas, considerable operating capital is required to carry accumulated inventory stocks.

468. BARTLETT, R. W. High market milk prices reduce milk consumption. *Ill. Farm Econ.* 34/35: 161-163. Mar./Apr. 1938. 275.28 L15

Studies of changes in retail milk prices (corrected for changes in consumers' income) in 51 cities and changes in the estimated per capita consumption of milk in the United States from 1930 to 1936 indicate that an increase in the price of milk is followed in about a year by a decrease in consumption, and after a year's interval milk consumption increases as milk prices decline. Studies of the effect of high market milk prices on canned milk consumption are also reported.

469. BARTLETT, R. W. Increasing the efficiency of milk distribution. *Hoard's Dairyman* 83: 66, 90. Feb. 10, 1938. 44.8 H65

Also in *Amer. Prod. Rev.* 85: 380-382. Jan. 26, 1938. 286.85 N482

From this study it is concluded that there is a marked upward trend in milk distribution costs and an increased spread between the retail prices of market and evaporated milk; also that an increasing proportion of milk is sold in stores and that there is an increasing use of paper containers. Increasing sales through stores is expected because of distribution costs lower than those for retail deliveries.

Distribution costs are lowered through use of paper containers.

Letter to the editor from W. A. Wentworth, calling attention to several errors in this article, appears in *Hoard's Dairyman* 83: 243. Apr. 25, 1938.

470. BAXTER, T. Milk board policy disclosed; guaranteed price to the producer. *Farmer & Stock-Breeder* 52: 2690-2691. Nov. 15, 1938. 10 F228

The author, who is chairman of the Milk Marketing Board of Great Britain, discusses operation of the Milk Scheme and suggests changes in policy. Principal proposal suggested is the payment of a guaranteed price to producers. If the proposal is adopted the Milk Board would then purchase all milk offered for sale and would be responsible for marketing it.

471. BENDIXEN, H. A. Economic organization of the dairy industry in Germany. *Milk Dealer* 27(9): 42, 44, 46, 48. Sept. 1938. 44.8 M595

The complete reorganization of the dairy industry in Germany is described, necessitated by the serious state of its economy prior to 1933. From the production end to the distribution end, every phase of the industry has undergone revision by the Reichsnährstand, the agency administering the program. Changes include the adoption of regulatory devices of great scope.

472. BENDIXEN, H. A. Opportunities in the cheese industry. *Natl. Butter and Cheese J.* 29: 34-39. Sept. 10, 1938. 286.85 B98Bu

By developing more varieties of fancy cheeses which would be regarded as delicacies by American consumers, returns in this industry might be materially increased. Some of these cheeses are described and their possibilities discussed. The same factor, and the small-sized package protecting the cheese against excessive spoilage, waste and drying, are said to have popularized process cheese, with the aid of large-scale advertising and distribution opportunities.

473. BLANFORD, C. J. An economic study of the costs of selling and delivering milk in the New York market. *N. Y. (Cornell) Agr. Expt. Sta. B.* 686, 60 p. Ithaca, 1938. 100 N48C

The expense of selling and delivering milk in New York City amounts to more than half the total cost of distribution. Several possible ways for decreasing the cost per unit for retail deliveries are suggested, including discontinuance of doorstep delivery in certain sections of the city where most milk is distributed through stores, use of helpers on routes in large sales areas, and restriction of the number of dealers delivering milk in each section of the city.

474. BLANFORD, C. J. The milk supply for the New York market. *N. Y. Agr. Col. Ext. B.* 396, 23 p. Oct. 1938. 275.29 N48E

The supply and utilization of milk at dairy plants tributary to the New York metropolitan market are described, with some indication of the total amount of milk produced for this market and the seasonal variation and differences in its production and utilization. An inventory of the facilities for handling milk in the New York milkshed is presented.

475. BLANFORD, C. J. Route returns at eleven retail milk distribution branches in the New York market, October 1933. *N. Y. Agr. Col. Farm Econ.* 105: 2563-2565. Feb. 1938. 280.8 C812

Route returns were greater for products whose sales were most variable. They were much higher at some of the distribution branches than at others. Sales branches in the suburban residential sections of the market had higher route returns than the branches located nearer the center of the city.

476. BLANFORD, C. J. Sales of milk by retail stores in the New York market, June 1938. *N. Y. Agr. Col. Dept. Agr. Econ. and Farm Managt. A. E.* 237, 18 p. Dec. 1938. 281.9 C81

Based on data obtained from 4508 retail food stores June 6-18, 1938. Includes material on proportion of stores selling each grade of milk in relation to family income; quantities of milk sold per store by grade; factors affecting quantities sold; and prices of milk, with reference to variation in prices, relation of prices to quantities sold, and effect of price differentials upon relative sales of fluid milk in glass bottles and paper containers and of evaporated milk.

477. BRANDT, K. The German fat plan and its economic setting. *Stanford Univ. Food Res. Inst. Fats and Oils Studies* 6, 344 p. Sept. 1938. 307.9 L53

Deals in part with German dairy markets before government regulation, stabilization of the butter market, and compulsory organization of the dairy industry and its markets.

478. BRESSLER, R. G., JR. Laws and regulations governing the production of grade B milk in New England. Boston, The New England Research Council on Marketing and Food Supply, June 1938. 145 p. 281.344 B75

These laws and regulations pertain to the registration and inspection of producers, health and cleanliness of cattle, construction and condition of stables and milk rooms, methods used in handling milk, health of employees, and quality of milk. Comparisons between the ordinances may provide some explanation of intermarket movements of milk and price differentials.

479. BROWN, A. J. Some economic problems in marketing Illinois cream. *Amer. Prod. Rev.* 85(15): 438, 440-443. Feb. 9, 1938. 286.85 N482

Address, Dairy Manufacturers Conference, Department of Dairy Husbandry, University of Illinois, Urbana, Ill. The problems: 1, A study of the relationship that has existed between butter prices and quality of butter; and 2, Economics of maintaining quality of cream, particularly while in transit from farms to creameries. Discusses the premium-payment systems for high quality butter in Minnesota, Oregon, and California, as well as the price situation in the Chicago and San Francisco markets with reference to butter score.

Problem 1 appeared as "Relationship between prices and butter quality" in *Creamery J.* 49(2): 5, 28-29. Feb. 1938. 44.8 C86

480. BROWN, J. H. A critical discussion of some methods and standards for certified milk. *Amer. J. Pub. Health* 28: 1053-1058. Sept. 1938. 449.9 Am3J

Discusses medical milk commission control, bacteriological methods and standards for, and pasteurization of certified milk.

481. BROWN, L. O. Consumer movement and how to meet it. *Ice Cream Rev.* 22(4): 34. Nov. 1938. 389.8 Ic22

Reports on a study made at Northwestern University which involved questioning 1000 housewives for their opinions on commercial ice cream. Results show that consumers know very little about the product. Presenting facts about ice cream in advertising is suggested to give the public a better knowledge of the product.

482. BUECHEL, F. A., and JOHNSON, E. H. Manufacture of dairy products in Texas; preliminary report. Austin, Tex. U. Bur. Business Res., 1938. 95 p. 281.344 B86M

Economic factors pertaining to the dairy industry in Texas are emphasized in the first part of this report. The distribution of dairy plants in the state is shown. The second part consists of statistics covering the following topics: (1) trend in production of dairy products, (2) differences in the trend of production of butter, cheese, evaporated milk, and ice cream, (3) seasonal variation in production, (4) percentage produced in the national total, (5) consumption of dairy products in the state, and (6) farm cash income from dairy products.

483. BULMER, J., and VINTER, P. Milk from cow to consumer. *New Fabian Res. Bur. Pam.* 41, 48 p. 1938. 280.344 B87

Only about half the milk required by the minimum standards of the Ministry of Health Advisory Committee on Nutrition is consumed in liquid form in Great Britain. The policy of the Milk Marketing Board has guaranteed a reasonable return to producers by the pooling system but has raised the retail price of milk by allowing the expansion of the unprofitable manufacturing market. The consumption of liquid milk can only be increased by a policy of reducing retail prices and subsidizing it at cheap rates to special classes. Suggestions for the organization of a program to meet these desiderata are offered.

Milk production, distribution and subsidization as elements of this program are emphasized.

484. BULMER, L. C. The problem of recontamination of pasteurized milk and its products. *Milk Dealer* 27(6): 76, 78-82. Mar. 1938. 44.8 M595

Also in *South. Dairy Prod. J.* 24(1): 9-11. July 1938. 44.8 So83

Based on a study of conditions in 41 major cities of the United States, with particular reference to Birmingham, Ala. Considers the rehandling of pasteurized milk and cream in bulk form after processing and of ice cream mix in soda fountains. Recommends the use of a hooded cap in bottling milk as protection against recontamination.

485. BURGESS, L. A. Butter standardization. *Queensland Agr. J.* 50: 10-12. July 1938. 23 Q33

In this short article the author cites advantages of standardization, states that the standardization of butter should be performed in the butter factory and discusses moisture tests, salting, unsalted butter and laboratory control.

486. BURGESS, L. A. The determination of water in butter. *Queensland Agr. J.* 50: 13-29. July 1, 1938. 23 Q33

The method, commonly known as the moisture test, is summarized as follows: "A known weight of butter in a weighed metal dish is heated until all water is expelled as steam. The dish and its contents are then cooled to atmospheric temperature and again weighed. The loss in weight is the water in the particular weight of butter taken and the percentage may be calculated by simple proportion."

487. CADWALLADER, R. C. Government and its relationship to price standards in the milk industry. *Minn. Law Rev.* 22: 789-835. May, 1938. Libr. Cong.

Reprint. 281.344 C11

With the coming of the depression, the milk industry found itself burdened with heavy surpluses, and unfair trade practices which brought about a breakdown in the incomes of those dependent on milk. The resultant strikes and public seethings brought prompt legislative action by Federal and State governments to place the industry under economic regulation. Evaluates the effects of this regulation, and discusses in general the legal and economic problems involved.

488. CALIFORNIA. DEPT. OF AGRICULTURE. Report to Senate interim committee... relative to administration of fluid milk marketing legislation. *Cal. Dept. Agr. B.* 27: 375-383. July-Sept. 1938. 2 C12M

Outlines the actions taken in carrying out the provisions of the two fluid milk marketing laws set up in Ch. 10, Div. 4 of the Agricultural Code, and the principal facts serving as the basis for these actions. Pt. 1 relates to producer stabilization and marketing plans authorized by that portion of the Code commonly designated as the Young Act. Pt. 2 relates to resale price fixing required by the Desmond Act in the Code.

489. CASSELS, J. M. The future of milk control. *J. Farm. Econ.* 20: 188-195. Feb. 1938. 280.8 J822

A discussion of the general trend toward more conscious social control over all economic activities; the special case that can be made for control over the milk industry; the long-run objectives of milk control; and the practical problems of actual administration in this field.

490. CLAUSS, W. Mesures d'organisation pour l'unification et l'amélioration des produits laitiers. *Lait* 18: 982-999. Nov. 1938. 44.8 L143

The status of quality control and standardization of milk, butter and cheese in various countries is considered, together with factors influencing such control.

491. CLEMENT, C. E. Milk-bottle losses and ways to reduce them. *U. S. D. A. C.* 469, 38 p. Mar. 1938. 1 Ag84C

Summary and conclusions in *Milk Plant Monthly* 27: 35-37. July 1938. 44.8 C864

Gives information on the life of bottles; the various plans or systems used by dealers to get bottles returned from the routes; the organization, management, equipment, and operation of milk-bottle exchanges for collecting, cleaning, and returning lost bottles; and methods for preventing the misuse of milk bottles, cans, and crates.

492. COHEN, R. The variation in retail milk prices between different areas. *Scot. J. Agr.* 20: 273-282. July 1937. 10 Sco82So

Reprinted in *Oxford U. Agr. Econ. Res. Inst. Misc. Papers in Agr. Econ.* v. 8, 1935-1938. 1938. 281.9 Ox2

Under the provisions of the Agricultural Marketing Acts, organized agricultural producers are enabled to control prices in so far as control of the home supply makes this possible.

Under the Milk Marketing Scheme in England and Wales, and in the main area of Scotland, the Boards have established the wholesale prices of liquid milk at a uniform level throughout their respective areas. Retail prices have likewise been prescribed.

The author appraises the effect of the Milk Marketing Schemes in England, Wales and Scotland by comparing prices in 1935-36 with those in 1928-29.

493. CONFORTI, E. How to encourage use of cheese in hotels and restaurants. *Natl. Butter and Cheese J.* 29: 16-17. Dec. 25, 1938. 286.85 B98Bu

Poor sales of cheese in hotels and restaurants are attributed to lack of knowledge on the proper use and sale of cheese, poor distribution, lack of knowledge on how to keep cheese, and lack of proper advertising. Each of these factors is discussed.

494. CONKLIN, C. T. One-crop farming in the North-east. *Country Gent.* 108: 14-15, 77. Dec. 1938. 6 C833

So completely does the production of fluid milk dominate the farming practices in New England and certain sections of other North Atlantic States that these farms have gradually drifted into the one-crop class. Although this situation has developed because of the definite and steady returns received for the milk, the system is not conducive to diversified farming, or even to a balanced program of dairy farming. A solution of the problem faced by the farmers, which are discussed, is the possibility of pastures bearing a larger percentage of the cost of herd maintenance and of permitting farms to economically carry more stock, plus the movement to ensile grasses and legumes for better and more economical winter feeding.

495. COOLS, L. J. Réactions réciproques des marchés du beurre, de la margarine et du saindoux en Belgique de 1920 à 1937. *Inst. de Rech. Econ. B.* 9: 321-348. Aug. 1938. 280.9 L92

Butter consumption has not increased in the same proportion as that of margarine, and has even decreased toward the end of the period. Shows the relationship between prices and consumption of these products.

496. THE COST of milk production in the South of Scotland, 1934-37. *Scot. J. Agr.* 21: 233-239. July 1938. 10 Sco82So

A definite increase in cost of production occurred between the beginning and end of this period. Because of climatic differences, the East of Scotland is a higher cost area than the West. The influence of weather on production costs is emphasized by the figures for 1934-35 and 1935-36. The absolute difference between summer and winter costs in the East varied between 4d. and 5d. per gallon and in the West between 5d. and 6d. At the relative price levels during 1934-37, the cost of all feed stuffs amounted to about 60 percent of the total cost of production.

497. COST of milk production on certain farms in Scotland in 1934-5 and 1935-6. *Scot. J. Agr.* 21: 27-32. Jan. 1938. 10 Sco82So

Three-fifths of the cost was for feed, and another fifth for labor; herd maintenance and other costs made up the remainder.

498. CRIPPS, J. The distribution of milk; a study of town delivery costs. *Oxford, Oxford U. Agr. Econ. Res. Inst.*, 1938. 96 p. 280.344 Ox2D

The author concludes that "there is no means of measuring accurately the possible reductions in costs to be achieved by the reorganization of milk distribution. It is clear from these investigations, however, that large distributors are able to operate at costs well below the minimum margins allowed by the Milk Marketing Board. If no more than one delivery were made in all districts and only one distributor were permitted to operate in each, retail prices might be reduced by about 4 d. per gallon, or 1 d. per quart, over the year."

499. CRIPPS, J. Fixing of retail milk prices. *Farm Econ.* 2: 177-179. Jan. 1938. 281.8 F223

Costs of milk rounds in a town with a population of about 70,000 in the south of England are considered in relation to physical differences of the districts covered and the number of deliveries. The practice of fixing minimum retail milk prices partly on this basis is discussed.

500. CRIPPS, J. The problem of milk distribution. *Oxford U. Agr. Econ. Res. Inst. Misc. Papers Agr. Econ.* 8: 2-12. 1938. 281.9 Ox2

Reprinted from *Med. Press and C.* 195(5143). Dec. 1, 1937.

Discusses present methods of distribution in England and the results of uncontrolled competition. States that in the interests of a pure supply and cheap distribution, existing methods should be abandoned and distribution should be treated as a public service.

501. CRIPPS, J. The retail distribution of milk in eight towns in England and Wales. *Farm Econ.* 2(11): 211-215. July 1938. 281.8 F223

Survey undertaken during May and June, 1938, showed great variations in the amount of bottling and the number of daily deliveries. The number of dairymen was unnecessarily large in each town.

502. CUNNINGHAM, L. C. Costs in dairy farming in New York. *N. Y. Agr. Col. A. E.* 229, 40 p. Sept. 1938. 281.9 C81

Abridgment under title "Costs in dairy farming" in *N. Y. Agr. Col. Farm Econ.* 109: 2651-2656. Oct. 1938. 280.8 C812

A study of fluctuations in the price of milk, and of costs of dairy rations, farm wages, machinery, gasoline, oil and supplies, taxes, building materials, fire insurance, fertilizer, and seeds.

503. CURRIE, J. R. Extra costs of producing T. T. milk. *Farmer & Stock-Breeder* 52: 265. Feb. 1, 1938. 10 F228

Excerpts from a paper entitled, "The production of the higher grades of milk," read before the Farmers' Club.

Adequately subsidizing tuberculin-tested milk prices is suggested as the best method of providing farmers an incentive to undertake the risk, trouble and cost of cleaning up their herds. A table showing the extra costs of producing grade A tuberculin-tested milk over ordinary milk is given.

504. DEAN, A. S., and HAENSZEL, W. M. Milk consumption in Buffalo. In *Brown, E. F., comp. Milk Papers* 3(43), 11 p. 1938. 281.344 B81

Reprint from *Buffalo U. Bur. Business & Social Res. Statis. Survey Sup.* 13(7A), 11 p. Mar. 1938.

Covers 26,845 families representing 102,641 individuals. The daily milk consumption rate per person was .40 quart (.33 quart for fluid milk and .07 quart for canned milk). Milk consumption varied directly with total family income and inversely with size of family. Families using fluid milk only used the same amount as those which used a combination of fluid milk and canned milk. This was true at all income levels.

505. DINSDALE, D. H., and WINTER, T. Winter costs of milk production in the northern counties 1935/36, 1936/37, 1937/38. *Newcastle-on-Tyne, King's Col., Dept. of Agr., n. d.* 18 p. 281.3449 K61

Shows feed, labor, and miscellaneous costs for the farms studied.

506. DISTRIBUTION economy and brand acceptance advanced by new method of curing and packaging cheese. *Food Indus.* 10: 279-280, 310. May 1938. 389.8 F737

Discusses the use of the valve-vented can which permits aging in larger sizes than 8-12 oz., eliminates evaporation losses and the formation of rind, cuts the cost of packaging, and makes possible marketing of the product in 4, 8 and 12-oz. prints, wrapped and trade branded.

507. DUCK, R. W. High and low test. *Rural New Yorker* 97: 198. Mar. 12, 1938. 6 R88

This study of the costs and returns from the production of milk of both high and low fat content, shows that production of high-test milk is more profitable.

508. ELLENBERGER, H. B., and STEARNS, J. T. Consumption of dairy products in Burlington. *Vt. Agr. Expt. Sta. B.* 433, 39 p. May 1938. 100 V59

Consumer preferences in the use of fresh milk, including the various grades thereof, canned milk, cream, butter, and cheese. Based on a house-to-house survey in 1935-36.

509. ELLENBERGER, H. B. Some producer-dealer relationships. *Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Paper*; Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 17: 49-56. 1938. 44.9 V593

Suggests the use of approved modern and efficient methods on dairy farms and a smaller increment of costs in the distribution of milk.

510. ELLENBERGER, H. B., and STEARNS, J. T. What is the influence of taste, income, nationality, and size of family on consumption of milk of average city? *Milk Plant Monthly* 27(10): 86, 88-89, 92-94. Oct. 1938. 44.8 C864

Report of a survey in Burlington, Vt., covering 3,616 families and 15,258 persons, or about three-fifths of the city's population. Shows per family and per capita consumption of fluid milk and of other dairy products, and the variations in rates of consumption by different families according to constitutional and other factors. It discloses the more important reasons for restricted usage as well as consumer reaction to such factors as quality and price.

511. EVANS, D. M. The renting of dairies in Dorset. *Gt. Brit. Min. Agr. and Fisheries. J.* 45: 764-766. Nov. 1938. 10 G79J

Under this practice, a farmer lets a herd of cows to a dairyman at a fixed rate per cow per annum and according to various conditions of the contract. Discusses other livestock kept on farms, labor, rentals, feed, and farm management. The system is much reduced since many of the dairy farms are operated on a milk-selling basis.

512. FABIAN, F. W. Milk and dairy products. *Amer. Pub. Health Assoc. Ybk.* (1937/38) 8: 66-74. 1938. 449.9 Am3Y

Report of the Committee on Milk and Dairy Products. Considers the public health aspects of milk, butter, cheese, ice cream and frozen desserts, and suggests regulatory program to insure sanitation of these products.

513. FARR, R. An economic description and analysis of the distribution of milk by producers in Connecticut markets. *Conn. Agr. Col. Ext. Econ. Digest Conn. Agr.* 73: 601-608. Dec. 1938. 275.28 Ec7

Digest by I. F. Fellows of the author's thesis under title as given. Includes description and analysis of sample of 186 producers distributing milk and milk products in five Connecticut markets, 1937, and material on costs of distribution.

514. FEDERAL-STATE program for the New York milk market. *U. S. Agr. Adjust. Admin. DM8*, 16 p. Oct. 1938. 1.4 Ad47D

Explains the background and provisions of the Federal and State orders regulating the milk policy in the New York metropolitan marketing area. Designed to assure to all producers a uniform rate of payment, the plan establishes minimum prices for milk according to the use made of it. At the same time, the producer must bear his equitable share of the market's surplus milk burden. An adequate supply of wholesome milk which can be sold at reasonable prices is assured to the consumer.

515. FLEMING, W. C. Dairy industry of San Joaquin County grosses three million dollars a year. *Pacific Rural Press* 135: 622. May 28, 1938. 6 P112

A dairy management study for the five-year period, 1932-1937, completed by the San Joaquin County dairymen in cooperation with the California Agricultural Extension Service, is given. Cost of producing market milk according to the study, which was based on records of 37 dairymen, was 52.8 cents per pound butterfat f.o.b. the ranch.

516. FRIBLEY, MRS. W. E. What can be done to increase consumer acceptance of commercial ice cream. *Ice Cream Rev.* 21(12): 60, 62-67. July 1938. 389.8 Ic22

Presented at the Ice Cream Short Course, University of Illinois, Mar. 1-4, 1938.

A survey of consumers in the income groups \$0-1500, \$1500-5000, and \$5000-up, showed that the first group used about all the ice cream they could afford, the second used it as a treat, and the last used only home-made ice cream. Consumers in Illinois are buying 33,830,000 gallons a year. Factors affecting the purchase of ice cream are mentioned.

517. FRIEDMAN, I. K. Suggests change to imperial quart for milk containers. *Milk Dealer* 27(12): 61. Sept. 1938. 44.8 M595

To promote milk consumption, recommends use of the following 2 sizes of containers only: a 38-ounce Imperial Quart to replace the regular 32-ounce quart, and a 12-ounce bottle in place of the present 8-ounce half-pint.

518. FRISBIE, D. M. Promoting fluid milk consumption. *New England Inst. Coop. Ann. Conf.* 11: 68-70. June 21-23, 1938. 280.29 N44

Explains how milk consumption gains were secured in New York State by means of an advertising campaign out of State funds.

Discussion, p. 70-71.

519. GENIN, G. Les problèmes qui restent à résoudre dans l'industrie laitière. *Lait* 18: 610-614. June 1938. 44.8 L143

Reviews questions regarding the production of better quality milk and cream, dairy equipment, milk transportation and consumption, and the assurance of an equitable price. Condensed milk, ice cream, and cheese are considered individually. Engineering problems, including the treatment of plant wastes, are also discussed.

520. GEYER, K. E. Milk inspection for sanitation or economic protection? *New England Inst. Coop. Ann. Conf.* 11: 130-131. June 21-23, 1938. 280.29 N44

Relates to trade barriers in the dairy industry, with particular reference to the situation in Connecticut. Discussion, p. 132-133.

521. GIFFORD, C. G. Dairy farm methods. *Pa. Assoc. Dairy Sanit. Ann. Rpt.* 14: 87-92. 1938. 44.9 P38

Includes information on milk quality and sanitary control practices.

522. THE GOVERNMENT'S milk policy. *Scot. J. Agr.* 21: 382-384. Oct. 1938. 10 Sco825o

Discusses developments in the operation of the British Milk Marketing Scheme affecting the payment of quality milk premiums.

523. GRADING of cream; causes and remedial measures. *Victoria Dept. Agr. J.* 36: 389-396. Aug. 1938. 23 V66J

States that quality butter can be manufactured only from quality cream and notes the causes of taints or faults in cream. The meaning of grades shown on factory receipts, their probable cause and remedial measures are presented in tabular form.

524. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Milk acts, 1934 to 1937. Arrangements for increasing the demand for milk within the area of the Milk Marketing Board for England and Wales by publicity Propaganda (Fourth scheme). London, H. M. Stationery Off., 1938. 4 p.

The scheme, estimated to cost £60,000, will be carried out by special publicity, a poster campaign, and newspaper advertising.

525. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. The Milk Marketing Scheme, 1933, as amended to 3rd August 1937. London, H. M. Stationery Off., 1938. 44 p.

Gives provisions of the scheme for the regulation of milk marketing in England and Wales.

526. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Report on agricultural marketing schemes for the year 1936. Presented to Parliament by the Minister of Agriculture and Fisheries and the Secretary of State for Scotland by Command of His Majesty, May 1938. London, H. M. Stationery Off., 1938. 122 p.

Includes reports on the operation of the Scottish Milk Marketing Scheme, 1933; Milk Marketing Scheme, 1933; Aberdeen and District Milk Marketing Scheme, 1933; and North of Scotland Milk Marketing Scheme, 1934.

527. GT. BRIT. SCOTTISH OFFICE. Arrangements for increasing the demand for milk within the area of the Scottish Milk Marketing Scheme 1933 by publicity and propaganda (Fourth scheme). Edinburgh, H. M. Stationery Off., 1938. 3 p. 280.344 Sco32Ar

Outlines a program of publicity and propaganda to be carried out during the year ending September 30, 1938, to stimulate the consumption of milk.

528. GRIFFITHS, M. J. Milk grading tests. *Queensland Agr. J.* 50: 173-179, 328-329. Aug.-Sept. 1938. 23 Q33

The methylene blue, fermentation, and sediment tests are described, and the applications and advantages of each indicated.

529. GUIN, M. An economic study of dairy farming in Oktibbeha and Lowndes Counties, Mississippi, 1936-1937. *Miss. Agr. Expt. Sta. B.* 324, 27 p., Oct. 1938. 100 M69

Presents data on farm management practices; expenses and profits of dairy farms of different sizes operating under varying conditions; practices, services and cost of services used in marketing dairy products; and the quality and quantity of products sold.

530. HARE, H. R. Dairy farm management and milk costs in Ontario. *Farmer's Advocate* 73: 635-637. Oct. 13, 1938. 7 F22

Results of a study of records of about 1430 producers for the year 1936 are given. Tables show cost of producing milk and yearly average price received per hundredweight for 14 areas in Ontario.

531. HILFER, I. Differential effect in the butter market. *Econometrica* 6: 270-284. July, 1938. 280.8 Ec78

The sales of three different types of English import butter were more closely related to the wholesale price of Danish butter two months previously than to the current wholesale price; but the opposite was true for the price of New Zealand butter. Discusses statistical methods used in arriving at these conclusions.

532. HITCHCOCK, J. W., and PAQUETTE, L. N. Studies in Vermont dairy farming; labor as a cost of milk production. *Vt. Agr. Expt. Sta. B.* 442, 16 p. Nov. 1938. 100 V59

On the average, 137 hrs. of labor were used per head during the year in milking, feeding, and caring for cows on 452 Vermont dairy farms surveyed in 1933. With an average production of 5,300 lbs. per cow, this was equivalent to 2.6 hrs. for each 100 lbs. of milk. Milking used 52, barn chores 39, washing and caring for utensils 6, and miscellaneous items 3 percent of the total time spent on cows.

More labor was used per cow in the care of high-producing herds, than of low-producing herds, but the differences in labor input were less than proportional to those in production, and the amount and cost of labor declined steadily with herd to herd increases in average milk yields. Labor was used more efficiently on large than on small farms, and a part of the lower labor input per cow on the large farms was the result of more common usage of milking machines.

533. HOBSON, A., and SCHAARS, M. A. Consumers buy more cheese during and after sales campaigns. *Wis. Agr. Expt. Sta. B.* 442: 8-12. Nov. 1938. 100 W75

Bulletin 442 is Pt. I of the annual report of the Station. Results given for 29 stores in Louisville, Ky., cover sales of natural mild American cheese, domestic Swiss cheese, and processed American loaf.

534. HOLMAN, C. W. How trade agreements affect the welfare of dairy farmers. *Natl. Coop. Milk Prod. Fed. Ed. Ser.* 12, 40 p. 1938. 281.3449 N21

Criticizes the national tariff policy on the score of possible economic repercussions, through lowering of prices.

535. HOMOGENIZED milk—what dealers who distribute it think of it. *Milk Dealer* 27(8): 38-39, 69. May-June 1938. 44.8 M595

A symposium of consumer preference based on information from 15 homogenized milk distributors in the United States and Canada. The general conclusion is reached that once the product is introduced, it gains steadily in popularity.

536. HOPPER, W. C., and BOUCHER, G. P. An economic study of the consumption of milk and cream in certain urban and rural districts of Canada. *Canada. Dept. Agr. Tech. Bul.* 14, 42 p. Mar. 1938. 7 C16T

Cities, villages and farm areas were surveyed in the three provinces of Ontario, Quebec and Alberta. Included in the study is the consumption of evaporated and condensed milk and buttermilk. The relation of locality, income, size of family, and nationality to consumption is shown.

537. HOW TED FLINT of Joliet, Ill., is increasing sales of bulk ice cream by offering consumer more flavors with a new type of container. *Ice Cream Rev.* 22(5): 22-24. Dec. 1938. 389.8 Ic22

Increasing the capacity of cabinets, better utilization of hardening room space, and increasing the load per truck are cited as advantages in the use of a new square 2-gal. container for bulk ice cream.

538. IMPERIAL ECONOMIC COMMITTEE INTELLIGENCE BR. Dairy produce: a summary of figures of production and trade relating to butter, preserved milk, eggs, cheese, casein, egg products. London, H. M. Stationery Off., 1936-38. 3 v. 280.39 G794c

Designed to present in convenient form summaries of the production and international trade in dairy products with special reference to the part played by the countries of the British Commonwealth of Nations. Tables show production, imports and exports, by country, for 1929-37. Import duties and regulations in the United Kingdom and import duties and quantitative restrictions in foreign countries are also shown.

539. IMPERIAL ECONOMIC COMMITTEE INTELLIGENCE BR. Dairy produce supplies, 1937. London, H. M. Stationery Off. 1938. 123 p. 286.85 G79

Supplement to *Weekly Dairy Produce Notes*. Publication gives statistics dealing with exports, imports, and foreign trade in dairy products, 1932-1937, for leading countries with emphasis on the United Kingdom. Legislative measures and trade agreements affecting dairy products in the United Kingdom and other countries are given in the appendix, p. 103-123.

540. INDIANA MILK CONTROL BOARD. Report of the activities of the Milk Control Board of Indiana. 16 p. 1933. 280.3449 In2

Events leading to the enactment of the milk law, enforcement policies, results achieved, number of orders issued, marketing areas established, number of dealers and producers under regulation, and prices to producers.

541. INTERNATIONAL INSTITUTE OF AGRICULTURE. International chronicle of agriculture: Estonia. *Internat. Inst. Agr. Monthly B. Agr. Econ. and Sociol.* 29: 543E-547E. Nov. 1938. 280.29 In83

Includes information on milk production, quality of Estonian butter, dairy exports, and "guaranteed" prices for first quality butter and cheese.

542. INTERNATIONAL INSTITUTE OF AGRICULTURE. International chronicle of agriculture: Ireland. *Internat. Inst. Agr. Monthly B. Agr. Econ. and Sociol.* 29: 441E-448E. Sept. 1938. 280.29 In83

Regulations, effective January 1, 1939, made under the Milk and Dairies Act, 1935, have the object of improving the quality of milk by means of a system of grading, and provide an incentive for the elimination of tuberculosis from dairy herds. Discusses the Milk (Regulation of Supply and Price) Act, 1936, and changes made under the Dairy Produce (Price Stabilisation) Act, 1935.

543. INTERNATIONAL INSTITUTE OF AGRICULTURE. International chronicle of agriculture: Switzerland; the milk market. Internatl. Inst. Monthly B. Agr. Econ. and Sociol. 29(2): 102E-103E. Feb. 1938. 280.29 In83

Measures affecting prices in the milk market of Switzerland.

544. IS THE milk business affected with a public interest? Milk Plant Monthly 27(9): 63-64. Sept. 1938. 44.8 C864

"From a report in the California Milk News of August 19."

Extracts from an opinion of Judge C. D. Ballard of Los Angeles, Calif., in a case in which dairymen and operators of gallon milk stores sought an injunction against the administrator of the State marketing law. The Judge stated that the milk industry is of such public interest that it is subject to the police powers of the State and that the authority given to the administrator "to investigate the business of the industry, inspect books, records, etc., is not a violation of the State constitution."

545. JACKSON, H. C., RUPEL, I. W., and VERGERONT, G. W. Dairying; problems in production, marketing, and management. Chicago, Lippincott, 1938. 168 p. 44 J13

Discusses the selecting and adapting farms for dairying, feeding dairy cows for efficient and economical milk production, producing good milk, and marketing dairy products.

546. JOHANSSON, I. Ekonomisk mjölkproduktion. Stockholm, 1938. 199 p. 281.344 J59

Breeding and feeding of cattle with some reference to milk costs and prices.

547. JOHNSON, O. M. Distribution costs in the ice cream industry. Natl. Assoc. Cost Accountants Ybk. 1937. 203-222. 1938. 280.9 N214

Factors influencing distribution methods and costs in the ice cream industry are considered. Delivery methods are also described, and the role of the deliveryman as salesman is shown.

548. JOHNSON, O. M. Preliminary report on ice cream can survey. Internatl. Assoc. Ice Cream Mfrs. Rpt. of Proc. 3: 12-21. 1938. 389.9 In83

This survey, covers 470 plants and shows the number of manufacturers using steel cans and paper cans. Includes charts which show cans in use by size and by classes of manufacturers, and sizes of paper cans used.

549. KOLLMORGEN, W. The butter industry of Nebraska. Nebr. Conserv. B. 16, 77 p. Mar. 1938. 279.9 N272B

History of the butter industry in Nebraska beginning with the first creameries built in the eighties. Includes information on production of butter and butterfat, number and character of milk plants, interstate shipment of butter, and value of by-products. There is some discussion of margarine as a competitive product.

550. KOLLMORGEN, W. Cheese production in Nebraska. Nebr. Conserv. B. 17, 35 p. July 1938. 279.9 N272B

Practices employed in the production of cheese, particularly cheddar cheese, in Nebraska are discussed, and dairying activities in this state are compared with those of Wisconsin. Almost half of the milk producers for cheese plants in Nebraska live within one mile of such plants and more than three-fourths within two miles of the plants. The milk producer pays from 20 to 30 c. per cwt. of milk hauled to the cheese plants. In Wisconsin the producer hauls his milk to the cheese plant, thereby reducing the transportation cost which the Nebraska producer has to meet.

551. KOLLMORGEN, W. Ice cream production in Nebraska. Nebr. Conserv. B. 18, 26 p. July 1938. 279.9 N272B

Gives information on the composition, manufacture and packing of ice cream; State statutory requirements of butter-fat content in ice cream; and the extent of the industry in the State.

552. KRUEGER, P. F. Necessary changes in average milk plant to comply with United States Public Health Service Standard Ordinance and Code. Milk Plant Monthly 27: 52, 54, 56-58. May, 1938. 44.8 C864

Changes in milk plant construction, equipment and operation, made necessary when the Ordinance and Code was embodied in a new ordinance in Chicago, are described in detail.

553. LAYSON, S. V. Dairy sanitation legislation. Milk Plant Monthly 27(12): 32-35. Dec. 1938. 44.8 C864

Shows how such regulation contributes to the production of safe, better quality milk, and how it has been a force in the increased consumption of milk and the improvement of public health.

554. LAYSON, S. V. Diminish milk bottle problems. Milk Plant Monthly 27(7): 32-35. July 1938. 44.8 C864

Milk bottle costs and losses are discussed and a means of minimizing them is outlined.

555. LEVOWITZ, D. What about standardization? Holstein Friesian World 35: 433. Apr. 30, 1938. 43.8 H742

Notes that the interest of dairymen in the mechanics of standardization has been stimulated through purchases of milk on a butterfat content basis, and explains briefly the use of several mechanical devices for the standardization of milk at the farm.

556. LININGER, F. F., and PIERCE, C. W. Seasonal changes in market milk production in Pennsylvania. The relation of month-to-month fluctuations in milk sales to prices received by farmers. Pa. Agr. Expt. Sta. B. 358, 32 p. Ref. Agr. 1938. 100 P381

Changes in the Pittsburgh, New York and Philadelphia milksheds are studied. It is concluded that the present price system favors uneven production and two plans for correcting this situation are suggested.

557. LUCIA, F. B. What uniformity means in marketing milk powder. Natl. Butter and Cheese J. 29(17): 18-20. Sept. 10, 1938. 286.85 B98Bu

Address, Dairy Manufacturers' Short Course, University of Wisconsin, March 1938.

Tells of the expansion of the industry and describes the process of manufacture and uses for the product. Poor quality and lack of uniformity has caused feed mills to use substitutes in place of dried milk for chick feeds and mash.

558. MCCLELLAND, M. Relative efficiency of paper and steel containers for ice cream. Ill. U. Dept. Dairy Husb. Mater. Presented at the Short Course in Ice Cream Manufacture. 1938: 60-62. 389.9 IL62

Finds that paper containers are cheaper, provide a better means of preserving the quality of the product, and are more convenient to use.

559. MACLEOD, A., and GERAGHTY, M. L. The transportation of New Hampshire milk. 1. Analysis of trucking charges. N. H. Agr. Expt. Sta. B. 307, 32 p. June 1938. 100 N45

The \$300,000 a year being paid by New Hampshire farmers for the transportation of milk to country stations and city plants may be reduced by a reduction of charges on routes where they are above competitive levels, or by a reorganization of truck routes and milksheds. The first of these possibilities is considered.

560. MALOTT, D. W. Problems in agricultural marketing. New York, McGraw-Hill, 1938. 410 p. Ref. 280.3 M29

Partial contents: H. P. Hood & Sons, Inc.: Buying problems of a fluid milk distributor and processor p. 346-353; the milk industry and Federal control - fluid milk marketing agreements, licenses, and orders, p. 385-391.

561. MASS. SPECIAL COMMISSION ON LAWS RELATING TO MILK AND MILK PRODUCTS: Mass. General Court, 1937. Senate Doc. 410, 81 p. 281.344 M38

Based largely on observations of conditions in nearby and western states, and on public hearings. Deals with dairy inspection, dealer bonding, marketing control, and frozen desserts.

562. MASSACHUSETTS STATE COLLEGE. EXTENSION SERVICE. Report of the sub-committee on marketing milk in Massachusetts, prepared at the request of the Committee on Problems Affecting the Dairy Industry of Massachusetts. Amherst, 1938. 55 p. 275.2 M38Rm
Arranged by Ellsworth W. Bell. Shaun Kelly, Chairman of the committee.

A study of the regulations or organizations necessary to help the producer obtain a fair price for his milk, and the distributor a fair return on his capital, with emphasis on the following factors: Class II price for milk; the Federal license in the New Bedford and Fall River Markets; the Federal license with equalization in the Boston Market.

Appendices:—1, Facts on milk marketing in Massachusetts; 2, Market situations which affect Massachusetts dairymen; 3, Three years under Federal milk control; 4, Brief history of Federal milk control in Boston with special reference to its application to nearby Massachusetts producers; 5, Description of actual operation of equalization pool; 6, The relationship of Class I and Class II prices in a fluid milk market, by D. B. MacCollom.

Report of Committee on Milk Production Problems, p. 36-55.

563. MEHRENS, B. Die Marktordnung des Reichs-nährstandes. Berlin, F. Vahlen, 1938. 332 p. 284.3 N47 (Schriften der Internationalen Konferenz für Agrarwissenschaft. (Internat. Conf. Agr. Econ.))

Contains section, "Milch und milcherzeugnisse," p. 230-295, which discusses marketing control of these products in Germany.

564. MIDLAND AGRICULTURAL COLLEGE. DEPT. OF AGRICULTURAL ECONOMICS. Investigation into the economics of milk production, second interim report; a comparison of milk production during the two summers of 1936 and 1937. Sutton Bonington, Loughborough, England, Apr. 1938. 20 p. 281.344 M585

Deals with the costs and returns from milk production on 45 farms in the East Midland Province. The price of purchased concentrates increased, and the average decline in yield was 12 gal. per cow, in summer 1937. The average delivered cost per gallon of wholesale milk was 9.32 d. in both summers. The average pool price realized was 0.60 d. per gal. higher in summer 1937.

565. MILK marketing. In British agriculture: the principles of future policy, p. 270-302. London, Longmans, Green, 1938. 281.171 B77

History of milk marketing over the last fifty years, discusses the milk marketing boards and their effects on prices, consumption and the industry in general. Transformation of the boards from bodies representative of farmers into public corporations is a much needed reform.

566. MILK RESEARCH COUNCIL, and NEWARK UNIVERSITY. RESEARCH CENTRE. Dislike of milk among young people. In Brown, E. F., Milk Papers 4(69), 63 p. 1935-1938. 281.344 B81

A survey of 1,837 high school boys and girls shows that milk consumption among them is influenced by external situations such as slight deteriorations of the milk itself or unfortunate circumstances under which it is offered, and that many dislikes revert to experiences of early childhood.

567. MILK RESEARCH COUNCIL and NEWARK UNIVERSITY. RESEARCH CENTRE. Milk drinking habits among young people, a psychological study. New York, 1938. 101 p. 389.1 M592

Pearl Greenberg was in charge of the study. Aim of the investigation was to survey the drinking habits of high school children with reference to milk and other beverages; to study especially those who disliked milk or did not drink milk; and to describe and explain the reasons for their dislike. Data were obtained from questionnaires and by interviews with New York City children and their mothers. Sample questionnaires are appended.

568. MISNER, E. G. Economic studies of dairy farming in New York; factors affecting premiums received in grade-A-milk production. N. Y. (Cornell) Agr. Expt. Sta. B. 698, 28 p. 1938. 100 N48C

Factors found to be most significantly correlated with the premium ratings received on 100 farms producing grade A milk in the Tully-Homer area were the size of the business and labor efficiency.

569. MISNER, E. G. Economic studies of dairy farming in New York; 100 grade A farms in the Tully-Homer area, crop year 1936. N. Y. (Cornell) Agr. Expt. Sta. B. 696, 59 p. May 1938. 100 N48C

Costs and returns of milk production are shown for the year ending Feb. 28, 1937. Factors affecting labor income and the cost of milk production, including size of business, diversity of business, rates of production, and labor efficiency, are examined.

570. MONTGOMERY, D. E. The reaction of consumers to changes in retail price of milk. U. S. Agr. Adjust. Admin. 1938. 11 p. 1.94 Ad422Ad

There is little factual support for the generalization that demand for milk is inelastic. Opportunity for increasing consumption will be greatly enhanced when it is recognized that there is a large group of the population who do not consume milk because they cannot pay either for the milk or services. Possible means of supplying the low-income market are considered.

571. NAIR, J. H., and BENTHAM, L. C. Judging sweet cream. J. Dairy Sci. 21: 791-799. Ref. Dec. 1938. 44.8 J822

Present-day quality in sweet cream, as distributed in urban centers, merits careful consideration of a number of characteristics not recognized in the score card now used interchangeably for milk and cream. At the same time, it appears desirable that a different weighting of individual qualities be made. A separate score card for cream is suggested, with proposed methods for judging the respective characteristics. Details of application are given.

572. NANNESON, L. Räkenskapsresultat från svenska jordbruk. XXIII. Bokföringsåret 1936-1937. Sweden. K. Lantbr. Styr. Meddel. 315, 117 p. 1938. 11Sw3

An annual statistical summary of Swedish agriculture for the fiscal year 1936-1937, including figures on dairy products, marketing and prices. Gives comparative statistics for a 25-year period.

573. NEW JERSEY. DEPT. OF AGRICULTURE. Factors influencing the production of New Jersey official grade A milk. N. J. Dept. Agr. C. 289, 46 p. Mar. 1938. 2 N46C

Sections of this report discuss efforts to control bovine brucellosis, milk flavors and odors, the care of milk-handling equipment, composite samples for butterfat tests, official inspection of grade A milk, and the safety and wholesomeness of this grade from the standpoint of the consumer.

574. NEW YORK (STATE) ATTORNEY GENERAL'S OFFICE. A report to Hon. Herbert H. Lehman, Governor, and the Honorable, the legislature of the State of New York by John J. Bennett, Jr., Attorney General, on the milk industry of the State of New York with particular reference to the New York metropolitan area. March 8th, 1938. New York, Case Press, 1938? 129 p. 280.344 N483

Presents data on the operations of the milk companies dominating this market. Analyzes the cost of handling, pasteurizing, and distributing milk in the area, involving country plant operations, freight and truck hauling, bottling and city plant costs, selling and delivery, administration expenses, and container costs. Discusses milk prices, and profits from fluid milk and from manufactured dairy products.

Discusses milk prices, and profits from fluid milk and from manufactured dairy products.

575. NEW YORK (STATE) COMMISSIONER OF AGRICULTURE AND MARKETS. Report... regarding the audit of milk dealers and cooperative associations. Legislative Doc. 1938, 100, 632 p. 1938. 281.344 N4822

Presents combined financial statements and statistics of 14 dealers of milk and milk products in the New York City metropolitan area from Jan. 1, 1936 to Sept. 30, 1937. A report covering operations of the Dairymen's League Cooperative Association, Inc., for the period Apr. 1, 1936 to Sept. 30, 1937, is included.

576. NEWMAN, W. A. The effectiveness of the butter tariff. Minn. Agr. Ext., Farm Business Notes 191: 3. Nov. 1938. 275.29 M663

A high tariff on butter is effective only in raising prices for temporary periods when the supply is short and some importations of butter are made.

577. NICHOLAS, J. E. The warming of milk in transit. Agr. Engin. 19: 61-62. Feb. 1938. 58.8 Ag83

Also in Dairy World 16(10): 38, 40, 44-45. Mar. 1938. 44.8 D1423.

Reports studies made on cold fresh milk transported by truck under conditions similar to those on average Pennsylvania routes. Tables show rises in temperature of cans exposed to the outside air in the sun and differences in temperature between the top and bottom of the cans. The effect on bacterial growth because of stratification in the cans should be studied.

578. NIGHTINGALE, E. We can sell 25 per cent more liquid milk. Farmer & Stock-Breeder 52: 2273. Sept. 27 1938. 10 F228

Points out how a new market for milk can be reached through the medium of paper containers.

579. NIXON, A. J., and REED, O. M. Municipal milk distribution in Tarboro, North Carolina. U. S. Agr. Adjust. Admin. DM-5 (Mktg. Inform. Ser.), 30 p. Dec. 1938. 1.4 Ad47D

A description and evaluation of the operation of a unified milk plant and distribution system, municipally owned and operated. The study develops (1) the historical basis of the Tarboro milk enterprise, (2) data and information on receipts and sales in that market, and (3) an analysis of the operations of the system.

580. OLSON, T. M. Elements of dairying. New York, Macmillan, 1938. 570 p. 44 O182

Ch. 13, Composition and Properties of Milk, discusses the utilization of casein, lactalbumin, and lactose; Ch. 27, Developing a Dairy Herd, gives data showing profitability of high-producing cows; and Ch. 32, The Dairy Cow, in part considers milk production costs.

581. OVERMAN, O. R., GARRETT, O. F., and RUEHE, H. A. Studies on the keeping quality of butter in cold storage. Ill. Agr. Expt. Sta. B. 446: 45-90. Sept. 1938. 100 I16S

Grading of 36 butters taken directly from the churn and packed in 3-pound paraffined, parchment-lined, Sealright cartons.

582. PARKER, C. V. Economic analysis of creamery operations in Manitoba, Saskatchewan and Alberta. Canada. Dept. Agr. Tech. B. 13, 36 p. Mar. 1938. 7 C16T

Objectives of study include a determination of cream gathering costs, of butter manufacturing costs, and of the effect of volume of output on the cost of manufacturing butter. Records of 78 creameries covering the fiscal year 1933/34 were used.

583. PARNELL, G. S. Digest of milk control law in Pennsylvania thoroughly indexed and annotated with decisions of other states; with orders and forms; also New Jersey statutes on this subject. Newark, N. J., Soney & Sage, 1938. 319 p. Libr. Cong.

Includes chapters on the history of milk control laws, procedure before the Pennsylvania Milk Control Commission, constitutional law, milk marketing areas in Pennsylvania, and a table of cases cited.

584. PARSONS, M. S. Effect of changes in milk and feed prices and in other factors upon milk production in New York. N. Y. (Cornell) Agr. Expt. Sta. B. 688, 67 p. 1938. 100 N48C

Based on two series of production data covering the periods 1910-36 and 1921-36. Shifts in the seasonality of milk production were largely the result of long-time changes in the milk-grain price ratio. The shift in seasonality of milk prices probably was due to the classified-price plan and a shift in the seasonality of butter prices.

585. PENNSYLVANIA MILK CONTROL BOARD. Country receiving station and transportation allowances in the Philadelphia, Pennsylvania, milkshed. 10 p. Philadelphia, 1938. 280.344 P38C

Shows the basis for determining an allowance for country receiving stations, cost of operation of city plants, and cost of receiving milk purchased through these stations, tank care expense, and transportation allowances on class I and class II milk.

586. POLLARD, A. J. Transportation of milk and cream to Boston. Vt. Agr. Expt. Sta. B. 437, 42 p. June 1938. 100 V59

Outlines the Boston milkshed, and discusses the relative importance of milk and cream; describes methods of transportation and their importance, and compares their rates and services; discusses the accuracy of the reports of milk and cream receipts issued by the U. S. Bureau of Agricultural Economics.

587. POST, J. W. Economies of grade buying. Wider spread in butter values makes price differentials for cream imperative. Amer. Prod. Rev. 85: 580, 582-584. Mar. 9, 1938. 286.85 N482

An address at annual convention of Illinois Dairy Products Association.

Purchase of cream on grade is advocated and would benefit both producers and creameryman. Paying the same price for all cream places a premium on poor dairying and discourages the careful producer.

588. PRIESTLEY, H. The future of the milk industry. Roy. Sanitary Inst. J. 58: 522-530. Feb. 1938. 449.9 R812

Discusses milk marketing, production, costs of production and distribution, consumption, the purity of the supply, including milk-borne diseases and pasteurization, and loose distribution compared with the distribution of milk in bottles and wax containers.

Discussion, p. 530-534.

589. PRUCHA, M. J. Sanitary aspects of paper milk containers. J. Milk Technol. 1: 4-9. Jan. 1938. 44.8 J824

Paraffining at 185° F. for 30 sec. results in a practically sterile container, and one that is safe to use.

590. REGAN, J. J. Veterinary supervision of milk supplies in the New York milkshed. Amer. Vet. Med. Assoc. J. 92: 769-771. June, 1938. 41.8 Am3

The use of veterinary services in sanitary milk control in New York is reviewed. At the beginning, particular emphasis was placed on tuberculosis, but as that disease was gradually eliminated, with the completion of Federal and State programs, more attention was given to bovine mastitis.

591. REICHAERT, E. L. How to figure mix costs. Ice Cream Trade J. 34: 22, 26. Feb. 1938. 389.8 Ic2

In territories where fresh products are available, ice cream mixes are best and most cheaply made with milk, cream and condensed skim as sources of fat and serum solids. In localities removed from actual production areas, mixes are cheapest when made from butter, skim milk powder or other concentrates.

592. REID, W. H. E., DREW, R. J., and ARBUCKLE, W. S. The composition and serving temperature as a means of increasing consumer preference for ice cream. Internatl. Assoc. Ice Cream Mfrs. Rpt. of Proc. 4: 76-81. 1938. 389.9 In83

Based on a thesis presented by R. J. Drew in partial fulfillment for the degree of Master of Arts at the University of Missouri.

Results of this study of the influence of the composition of the mix on serving temperature shows that ice cream containing 14 percent fat was generally the most desirable. Illustrated by a table, charts and microphotographs.

593. REID, W. H. E., and ARBUCKLE, W. S. The effect of serving temperature upon consumer acceptance of ice creams and sherbets. Mo. Agr. Expt. Sta. Res. B. 272, 34 p. Jan. 1938. 100 M693

Also in Ice Cream Trade J. 34(1): 10, 12, 18, 32-34, 38. Jan. 1938. 389.8 Ic2

Represents opinions of 181 consumers. The most desirable serving temperature for most ice creams and sherbets was 10° F. Ice creams and sherbets low in sugar content and with mild flavors were preferred at a higher serving temperature than 10° F., while products more pronounced in flavor and with a higher sugar content were preferred at a lower temperature.

594. RENNER, K. M. Factors the butter industry should consider in future quality improvement. Natl. Butter and Cheese J. 29: 26-28. Mar. 10, 1938. 286.85 B98Bu

With introductory paragraph relating to Texas, published under title "Factors for Texans to consider; a Discussion of Directions for further Improvement" in Amer. Prod. Rev. 85(25): 750-751. Apr. 13, 1938. 286.85 N482

Factors with respect to the cream station system of quality control are outlined. Plant operations, involving more rigid quality and laboratory control, are further emphasized. Adequate dairy legislation affecting the butter industry is considered a prop in quality improvement. Lastly, some of the reasons for poor quality cream and butter are enumerated.

595. REYNOLDS, A. E. California's ice cream control program. Calif. Dept. Agr. B. 27: 532-535. Nov. 1938. 2 C12M

Changes in the ice cream laws of California are described. These involve the standards for sherbet and of composition and quality for ice cream mix and ice milk mix, as well as quality requirements for unsalted butter used in these products. Pasteurization of all ingredients except fruits, nuts and flavors is required. The sanitary regulation of ice cream factories is strengthened.

596. RICE, E. B. Observations on the dairy industry of Denmark. Queensland Agr. J. 50: 716-729. Dec. 1938. 23 Q33

Contains information on butter sampling, grading and quality control.

597. RICE, E. B. Observations on the dairy industry of the Irish Free State. Queensland Agr. J. 49: 443-455. May 1, 1938. 23 Q33

Describes breeds of cattle, schemes for improvement of dairying, creamery butter manufacture, butter grading, and the Irish Butter Testing Station.

598. ROBERTS, H. E. Consumer preference for ice cream. Ohio State U. Col. Agr. and Domestic Sci. Dairy Technol. Conf. Mater. Presented 1938: 137-139. 44.9 Oh35M

Results of quantity test of consumer preferences in ice cream. For further report see item no. 829.

599. ROGERS, F. E. Daylight vs. night delivery. Milk Plant Monthly 27(3): 28-30. Mar. 1938. 44.8 C864

Finds that in general night delivery is preferable, but that extension of daylight service may be desirable in some communities.

600. ROLAND, C. T., and TREBLER, H. A. A plant study of damaged and defective milk bottles. J. Dairy Sci. 21: 275-281. June 1938. 44.8 J822

A study of data from two large bottling plants.

601. RUEHE, H. A., and BARTLETT, R. W. Price relationship of fluid milk. Hoard's Dairyman 83: 339, 351. June 25, 1938. 44.8 H65

Shows the influence of consumer income on prices, of butter prices on market milk prices, and of price on sales, especially in low income groups.

602. SANBORN, J. R. Proposed standards for paper milk containers. J. Milk Technol. 1(2): 41-45. Jan. 1938. 44.8 J824

603. SANBORN, J. R. Suitable paper wrappers and containers for foods. Amer. J. Pub. Health 28: 571-575. May 1938. 449.9 Am3J

Discusses the public health aspects of paper food containers with particular reference to milk containers, and states that the present satisfactory paper milk container is sanitarily manufactured from virgin pulp and contains less than 500 bacteria per gm. of disintegrated board. Results of tests for bacterial content of fabricated containers are shown in a table.

604. SCHUBRING, W. Butter trade and prices in 1937. Internatl. Inst. Agr. Internatl. Rev. Agr. 29: 515 S-519 S. June 1938. 241 In82

Gives average annual prices of Danish and New Zealand butter, and average of all butters imported into the United Kingdom for 1913 and 1928-1937, individually, and average monthly prices of butter imported into the United Kingdom for the period 1931-1937.

605. SCHULTHEISS, F. Fluid milk market stabilization. Milk Plant Monthly 27(3): 36, 38, 40-41. Mar. 1938. 44.8 C864

States that Wisconsin was the first State to attempt to stabilize fluid milk markets, discusses the Wisconsin plan, and reports on the work done and results attained.

606. SCHURMANN, R. Der handel mit deutscher butter. Germany. Reichs Min. f. Ernähr. u. Landw. Ber. über Landw. Sonderheft 136, 113 p. Ref. 1938. 18G 31A

The German wholesale butter trade which is largely in the hands of small dealers in the consumption area receives a great part of the dairy farm butter in Germany. Joint marketing is, however becoming of increasing importance. In 1934, 20 associations marketed 15 percent of the entire production.

This article discusses prices and price regulation designed to stabilize German agriculture in a falling world market, and shows that, because of the short route from the producer to the consumer, the rapid turnover, and great competition, the selling margin for butter was very small. Nevertheless profits were made. Now that prices have been stabilized, profit possibilities are greater.

607. SHEPARD, J. B., SMITH, R. K., and WILSON, J. L. Milk production and utilization in the United States, 1934, 1935 and 1936. Washington, U. S. Bur. Agr. Econ., 1938. 11 p. 1.9 Ec71Mpu

Includes material on total supply and utilization of milk in the U. S., and on milk utilization for each purpose on farms by States.

608. SHERMAN, R. W. Effect of base and surplus plans on volume of milk sales by individual producers. Ohio. Agr. Expt. Sta. Bimo. B. 194: 176-177. Sept.-Oct. 1938. 100 Oh3S

A group of 374 milk producers from four Ohio markets who shipped milk continuously from 1927 to 1936 was selected for this study. Sales were studied from the standpoint of what happened to their sales volume when they changed from a so-called summer producer to a winter producer and vice versa. Data are given on the number of producers who had a smaller or larger volume of sales accompanying both types of changes. These changes indicate that the adherence to base and surplus plans was accompanied to some degree by lower sales.

609. SHERRARD, F. R. G. N. Some costs of producing tuberculin-tested milk. *Farm Econ.* 2: 187-189. Apr. 1938. 281.8 F223

Records for six tuberculin-tested herds, in different parts of England, for the three years, 1934-35 to 1936-37. Although most of the costs were reduced during this time, the range of cost among the farms remained wide. This is attributed partly to differing interpretations of the standards required for the production of tuberculin-tested milk.

610. SMITH, H. P., and TRACY, P. H. Consumers' preference for ice cream. *Dairy Indus.* 3(10): 397-399. Oct. 1938. 44.8 D1427

Also in *Ice Cream Rev.* 21(5): 27-28, 38. Dec. 1937. 389.8 Ic22

Summary of thesis presented by the senior author in partial fulfillment of the requirements for a Master's Degree at the University of Illinois.

Results of the survey, in which the problem was studied from two angles, first by questionnaire and second by actual sampling of the ice creams in question.

611. SPENCER, L. The general economic situation as related to problems of the milk industry. In Brown, E. F., comp. *Milk Papers* 3(52), 9 p. 1938. 28T.344 B81

Discusses such topics as milk sales and business activity, flexible and inflexible prices, retail prices and margins, wages and taxes, and profits in milk distribution.

612. SPENCER, L. Milk and cream use in New York. *Amer. Prod. Rev.* 85(14): 396. Jan. 26, 1938. 286.85 N482

Compares the consumption of fluid milk in New York City with that in other cities in the State and with that in other countries. Factors influencing consumption are retail milk prices, income, birth rate, and educational campaigns and other methods of making consumers fully aware of the food value of milk.

613. SPENCER, L. Milk prices in New York under federal and state orders. *N. Y. Agr. Col. A. E.* 234, 19 p. Oct. 1938. 281.9 C81

A study of the price control program which became effective Sept. 1, 1938, dealing with the classification and prices of milk for Sept. 1938 as announced by the Market Administrator; the effect of the reduction of freight differentials on returns to farmers near New York City and those in the most distant counties; retail prices of Grade B milk and evaporated milk at grocery stores in New York City, 1925-Oct. 1938; and the probable duration of improvement in milk prices resulting from the Federal-State control program.

614. SPENCER, L. The surplus problem in the northeastern milksheds. *U. S. Farm Credit Admin. Coop. Div. B.* 24, 88 p. Apr. 1938. 166.2 B89

Published in cooperation with the N. Y. State College of Agriculture.

The surplus problem in the northeastern milksheds is said to involve two phases, (1) utilization of milk in these states, and (2) western cream as a supplementary supply for the markets of this region. These aspects are treated separately in part I and part II of this bulletin. Lines of action toward solving the problem are suggested.

615. SPENCER, L. Western cream for eastern markets. *J. Farm Econ.* 20: 196-207. Feb. 1938. 280.8 J822

Summary in *N. Y. Agr. Col. Ext. Farm Econ.* 99: 2429-2430. Feb. 1937. 280.8 C812

The trend in the utilization of cream shipped from dairy plants in the midwestern states is shown, together with the extent of operations of these plants. Conditions affecting the sanitary quality of "western cream" are indicated. Data are given on the costs of making and shipping cream from this source, and also on net returns.

Discussion, p. 208-213.

616. STECK, L. J. The regulation of milk marketing in England and Wales. *U. S. Agr. Adjust. Admin. DM-4 (Mktg. Inform. Ser.)*, 75 p. 1938. 1.4 Ad47D

Discusses the provisions of the Milk Marketing Scheme and its operation, and compares Federal regulation of milk marketing in the United States with that in England and Wales. Includes a brief account of the dairy industry and a description of marketing conditions in England and Wales prior to the introduction of the Scheme.

617. STEERE, L. V. Recent developments in Swedish agricultural policy. *Econ. Foreign Agr.* 2(5): 213-234. May 1938. 1.9 Ec7For

The functioning of the Swedish Milk Scheme with particular reference to milk and butter price equalization.

618. STEVENS, G. P. A quality improvement plan for Utah. *Natl. Butter and Cheese J.* 29: 33. May 10, 1938. 286.85 B98Bu

Gives details of a three-months' quality improvement program for Utah's milk, cream, butter and cheese industry.

619. STITTS, T. G., and others. Relative prices to producers under selected types of milk pools. *U. S. Farm Credit Admin. Coop. Div. B.* 253, 127 p. June 1938. 166.2 B87

W. C. Welden, E. W. Gaumnitz, O. M. Reed, and H. L. Forest, joint authors.

On the basis of a study made in 1937, the authors discuss pooling procedure and analyze some of the specific factors involved in setting up pooling plans for distributing the sales returns among different producer groups in the milk-supply area. The analytical portions treat entirely of conditions in the milkshed and marketing area of Boston, Mass. Information collected in the administration of Federal programs regulating the handling of milk in this market forms the basis of most of the statistical analyses included.

620. SURVEY of cream grading laws in the United States. *Natl. Butter and Cheese J.* 29: 18-20, 22-25. June 10, 1938. 286.85 B98Bu

Results of a questionnaire survey show that half of the 40 states from which replies were received have cream grading laws; 8 percent have some type of voluntary grading system; and 42 percent have no grading laws whatsoever. Facts on differences in the provisions of these laws and their application in the various states are noted.

621. SVARDSTRÖM, F. *Marknadsundersökningar 1-3. Sweden. K. Lantbr. Styr. Meddel.* 306, 307, 312. 79 p., 80 p., 148 p. 1937-1938. 115w3

Nos. 306(2), 307 and 312 have English summaries under the titles "The production of milk," "The British butter market" and "Prices of milk and dairy products in the period 1922-1936." No. 306 discusses the relationship between supply and demand and prices; no. 307, the effect of United Kingdom butter stocks on world market prices; no. 312, trends in dairy prices, as affected by supply and demand, by foreign price levels, and by government regulation.

622. TANNER, F. W. Microbial flora of paper containers. *Amer. J. Pub. Health* 28: 587-592. Ref. May 1938 449.9 Am3J

The average bacterial content of paper milk containers is found much lower than that reported for some glass bottles, and of no sanitary significance. Methods of making paperboard, while not always yielding a sterile product, cause a profound reduction in numbers of viable bacteria. Waterproofing the paperboard with hot paraffin also contributes to this end. The containers studied were made and sealed in the factory. That part which comes into contact with the milk is not exposed to contamination, for the containers are not opened until they are about to be filled. They are considered safe and convenient to use.

623. TAUSSIG, ST. The world butter production. *Internat. Inst. Agr. Internat. Rev. Agr.* 29: 44T-61T. Feb. 1938. 241 In82A

Although the emphasis herein is placed almost exclusively upon production, material is given on milk utilization, p. 60-61, for a number of countries.

624. TAYLOR, G. R. Restrictions on the free movement of farm products in the United States. *New England Inst. Coop. Ann. Cong.* 11: 108-126. 1938. 280.29 N44

Restrictions on dairy products, p. 121-126.

625. TAYLOR, G. R. Trade barriers in the dairy industry. *U. S. Bur. Agr. Econ. Agr. Situation* 22(8): 9-11. Aug. 1938. 1 Ec7Ag

The operation of measures acting as trade barriers against the interstate and intrastate movement of dairy products is critically reviewed.

626. TENNY, L. S. The use of a futures market in connection with the dairy industry. *Tex. Cream Improvement Assoc. Addresses* 2, 5 p. 1938. 44.9 T312

Explains how the Chicago Mercantile Exchange can be used by the creameryman to eliminate price risks.

627. THOMSEN, L. C. What needs to be done to increase the consumption of butter. *Amer. Prod. Rev.* 86: 534. Sept. 14, 1938. 286.85 N482

Also in *Natl. Butter and Cheese J.* 29: 10-12, 14. Jan. 25, 1938. 286.85 B98Bu

The author points to factors making for a decrease in butter consumption. He suggests that improved flavor, texture, and color would enhance its appeal to consumers, and points out a need for consumer education as to the nutritional properties of butter.

628. TIEDEMAN, W. D. The role of platform tests and farm inspections in milk control. *J. Milk Technol.* 1(5): 17-32. July, 1938. 44.8 J824

Evaluates the odor, strainer dipper, methylene blue, and sediment tests. The first proved of considerable value, particularly at grade B plants.

629. TILL, I. Milk—the politics of an industry. In *Hamilton, W. Price and price policies*, p. 431-524. New York, McGraw-Hill, 1938. 284.3 H182

The milk industry as a big business pent in by the petty economy of the farm and the petty economy of the household. A study of the milk market, its method of fixing prices, and its regulation by the State. Prepared for the Cabinet Committee on Price Policy set up in 1934.

630. TINLEY, J. M. California milk control legislation. *J. Mktg.* 3: 175-177. Oct. 1938. 280.38 J82

A discussion of the Young Act, amended 1937, providing for the determination and enforcement of producers' prices based upon the economic relation between prices of market milk and prices of manufacturing milk in the various marketing areas, and of the Desmond Act, effective Aug. 27, 1937, extending the power of the Director of Agriculture to determine and establish minimum wholesale and retail prices as soon as possible in existing marketing areas and to put both producer and resale prices into effect in new areas.

631. TINLEY, J. M. Lessons from public control in milk marketing. *J. Farm Econ.* 20: 807-822. Nov. 1938. 280.8 J822

Since 1933 the Federal and many State legislatures have passed laws for the regulation of some or all phases of milk marketing. These laws have been reviewed by various State supreme courts and by the United States Supreme Court. These decisions make possible certain tentative conclusions, which are enumerated.

The various State laws may be divided under two general headings: those which provide only for the support of minimum (not maximum) prices to producers; and those which in addition provide for regulation of minimum resale prices. Most of this paper is devoted to this latter aspect of the problem, illustrated from the operation of the California milk control legislation.

632. TINLEY, J. M. Public regulation of milk marketing in California. Berkeley, U. of Calif. Press, 1938. 213 p. 280.344 T49

Discusses the subject under the following topics: Setting the stage for milk wars; collapse of milk marketing in California; public stabilization efforts before 1937; economic basis for regulating milk distribution; regulation of producer prices under the amended Young Act; resale price regulation under the Desmond Act; survey of distribution costs and store margins; allocation of costs between fluid milk and other products; and resale prices based on distribution costs. Concludes that "the present milk-stabilization legislation in California appears to be founded on sound economic principles, and if well administered and conscientiously supported by those in the market-milk industry should gradually promote greater efficiency in fluid milk distribution."

633. TO MAINTAIN sanitary standards of grade A milk. *Milk Plant Monthly* 27(7): 52, 54, 57. July 1938. 44.8 C864

Lists four "most important features" of conditions which have prevailed in the Eastern States in the production and sale of Grade A milk for some 25 years, and 21 "general principles" adopted by the Grade A Milk Association of New York City.

634. TRACY, P. H. Certain practical aspects of the use of paper milk containers. *J. Milk Technol.* 1: 40-42. Mar. 1938. 44.8 J824

Discusses the type of container formed and paraffined immediately before filling, its manufacture, its condition when filled with milk, and the reaction of the milk in the container to heat. Consumer tests based upon 221 completed questionnaires show a preference in most respects for the paper container.

635. TUFFT, J. E. Arden of Los Angeles "goes to town" with a new 15-cent package. *Ice Cream Rev.* 22 (3): 40-41. Oct. 1938. 389.8 Ic22

The package, eight-sided and pie-shaped, is a convenient size for slipping into the freezing compartment of the domestic mechanical refrigerator.

636. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Economic brief with respect to the proposed marketing agreement and proposed order [for various marketing areas]. Washington, 1936-38. 16 v. (Its Series on Marketing Agreements and Orders Paper 1-18.) 1.94 D14Pap

No. 4-5 not issued.

These briefs discuss the economic bases for the proposed agreements, supply and demand conditions and prices in the various markets.

Contents: No. 1. Greater Boston marketing area, by P. L. Miller and O. M. Reed; No. 2. Fall River, Massachusetts marketing area, by P. L. Miller, O. M. Reed and E. E. Warner; No. 3. San Diego, California marketing area, by O. H. Hoffman, Jr., and E. E. Warner; No. 6. Kansas City, Missouri marketing area, by P. L. Miller and H. L. Forest; No. 7. Topeka, Kansas marketing area, by P. L. Miller and H. I. Richards; No. 8. Dubuque, Iowa marketing area, by P. L. Miller and H. I. Richards; No. 9. District of Columbia marketing area, by P. L. Miller, W. P. Sadler and H. L. Forest; No. 10. Fort Wayne, Indiana marketing area, by P. L. Miller, W. F. Caskey, and A. W. Colebank; No. 11. Philadelphia, Pennsylvania marketing area, by P. L. Miller and E. E. Warner; No. 12. Proposed amendment to Order No. 4 for the Greater Boston marketing area, by O. M. Reed, H. L. Forest, J. R. Hanson and P. L. Miller; No. 13. Louisville, Kentucky marketing area, by H. L. Forest, J. R. Hanson and W. P. Sadler; No. 14. La Porte County, Indiana marketing area, by H. L. Forest, J. R. Hanson, and W. P. Sadler; No. 15. Fall River, Massachusetts marketing area, by A. W. Colebank and P. L. Miller; No. 16. Cincinnati, Ohio marketing area, by J. R. Hanson and P. L. Miller; No. 17. St. Louis, Missouri marketing area, by P. L. Miller, H. I. Richards, and W. G. Sullivan; No. 18. Philadelphia, Pennsylvania marketing area.

637. U. S. AGRICULTURAL ADJUSTMENT ADMIN. New York milk; explanation of the Federal-State marketing plan contained in Order No. 27. U. S. Agr. Adjust. Admin. DM-6, (Mktg. Inform. Ser.), 13 p. 1938. 1.4 Ad47D

Includes material on purpose of the program, principal provisions, proposed joint state and federal administration, classification of milk according to use, minimum price for each class of milk, uniform price computation, payments out of pool, and uniform pool prices for producers.

638. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Stability in milk markets. U. S. Agr. Adjust. Admin. DM-3, (Mktg. Inform. Ser.), 13 p. 1938. 1.4 Ad47D

The Agricultural Marketing Agreement Act of 1937 is discussed, with reference to its application to the regulation of milk marketing in interstate or foreign commerce. This often calls for coordination of the Federal and State programs, which the Act makes possible.

639. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Tentatively approved marketing agreement regulating the handling of milk in the Cincinnati, Ohio, marketing area. Washington, 1938. 13 p. (Docket No. A-59) 1.94 D14Ma

Contains articles relating to the administration of the agreement, and such items as reports of handlers, classification of milk, values and prices, and manner and calculation of payments.

640. U. S. BUR. OF AGRICULTURAL ECONOMICS. Estimating yearly changes in fluid milk and cream consumption in cities and villages, by G. W. Sprague and G. G. Foelsch. Washington, 1938. 32 p. 1.9 Ec724Ey
A study of the bases used by the Bureau of Agricultural Economics in estimating milk and cream consumption.

641. U. S. BUR. OF AGRICULTURAL ECONOMICS. Foreign agricultural policies—a review and appraisal. The Netherlands. Foreign Agr. 2(2): 84-92. Feb. 1938. 1.9 Ec7For

Price regulation of butter, cheese and milk.

642. U. S. BUR. OF AGRICULTURAL ECONOMICS. Revised tentative United States standards for quality of creamery butter, effective April 1, 1938. 33 p. Mar. 1938. 1 Ec7Rt

Explanation of revised tentative United States standards for quality of creamery butter, by Roy C. Potts, Edward Small, and C. W. Fryhofer, p. 11-33.

643. U. S. COMMODITY EXCHANGE ADMIN. Grades of butter, eggs and Irish potatoes deliverable on contracts for future delivery. Washington, 1938. 81 p. 1.9 C73Cb

Gives rules of trading procedure on the Chicago Mercantile Exchange and the New York Mercantile Exchange.

644. *U. S. CONGRESS. HOUSE. COMMITTEE ON COINAGE, WEIGHTS AND MEASURES. Standard metal container act of 1937. Hearings, 75th Cong., 3d. sess. on H. R. 6964, Mar. 15 and 16, 1938. Washington, 1938. 190 p. 280.3 Un322S

Includes milk containers.

645. U. S. DEPT. OF STATE. The trade-agreements program benefits the dairy industry. Washington, 1938. 16 p. 150.1 T673

Also in Brown, E. F. Milk Papers 7(160), 16 p. Jan.-Feb. 1940. 281.344 B81

By increasing world trade and thus improving business conditions and increasing employment at home, the program provides better domestic markets for dairy products as well as other products. It also relieves the pressure of competition in dairying from other farm groups and, to some extent, opens and enlarges foreign markets for American dairy products.

646. WAITE, W. C., and COX, R. W. Seasonal variations of prices and marketings of Minnesota agricultural products, 1921-1935. Minn. Agr. Expt. Sta. Tech. B. 127, 59 p. Mar. 1938. 100 M66

Discusses type and regularity of seasonal price movement, market movement and utilization, and variations in production, consumption, and price of butter.

*Not examined.

647. WALWORTH, G. The Government and milk. Cop Rev. 12: 48-51. Feb. 1938. 280.28 C7823

Criticizes several policies of the British Milk Marketing Board and calls for greater efficiency of production, transportation, and distribution with a view to effecting economies in the interests of the consumer.

648. WELLWOOD, R. M. What will be the effect on metropolitan milk dealers of the New York Federal-State market agreement? Milk Plant Monthly 27(10): 72-73, 78. Oct. 1938. 44.8 C864

The effect of this agreement is to spread the burden of surplus milk through the operation of a market pool. Each producer will assume his proportionate share of the excessive production. Adoption of a market pool by producers, the author says, also makes it possible for them to charge each dealer the same price for milk sold in the market area. However, he estimates that the probable cost increase will amount to 1 1/2 c. per qt. of milk.

649. WHEATON, E., LUECK, R. H., and TANNER, F. W. Observations on problems relating to the paper milk bottle. J. Milk Tech. 1(3): 11-15. Mar. 1938. 44.8 J824

Fiber milk containers were found to be in a nearly sterile condition as determined by an approved rinse test. Describes methods used in their manufacture.

650. WHITE, G. C. Selling milk on its food value. Holstein-Friesian World 35: 434-435, 464. Apr. 30, 1938. 43.8 H742

Address, Northeastern Dairy Conference, January 25, 1938.

Notes that there are several breeds employed in supplying the markets with fluid milk, and that the product of these breeds varies from a little less than 3.5 to over 5 percent in fat and almost as widely in the other milk ingredients. Because of these variations, advocates sale of milk to consumers on its food value.

651. WHITTIER, E. O. Dairy by-products development. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 17: 66-76. Dec. 7-8, 1938. 44.9 V593

Deals with the utilization of skim milk, buttermilk, and whey.

652. WISCONSIN UNIVERSITY. COLLEGE OF AGRICULTURE EXTENSION SERVICE. Reciprocal trade agreements and Wisconsin dairying. Wis. Agr. Col. Ext. Econ. Inform. Wis. Farmers 9(12): 1-4. Dec. 1938. 275.29 W75Ec

Considers the subject mainly in relation to prices of dairy products.

653. WITNEY, D., and MAXWELL, S. B. Report on the financial results of 12 East of Scotland dairy-arable smallholdings for 1936-37. Edinburgh, Edinburgh and East of Scotland Coll. of Agr. Econ. Dept., 1938. 8 p. 281.9 Ed4

Milk represents nearly half of the total output of these farms; cattle and eggs together, one-quarter. The crops grown are mainly for home consumption. Data given include costs of production and returns for total produce, with a note on milk prices received.

654. WOODWARD, B. T. Many changes made by new dairy laws in California. Milk Plant Monthly 27(1): 72-76. Jan. 1938. 44.8 C864

Stabilization, marketing and price control plans recently established under the administration of the California Director of Agriculture, affect the production and distribution of all dairy products, including sherbet which is introduced for the first time as a standardized product.

655. *WUTZ, A. T. Alpenländische milchwirtschaft... Berlin, Reichsnährstand verlags-ges., 1938. 133 p. Ref. (Schriftenreihe der Studiengesellschaft für national-ökonomie e. v., Institut für bäuerliche rechts- und wirtschaftsordnung. Reihe B. Deutsche und fremdvölkische landwirtschaft, v. 1) 281.344 W96

Milk production and consumption in Austria. - U. S. Bur. Agr. Econ. Agr. Econ. Lit. 13: 1117. Dec. 1939. 1.9 Ec73Ag

656. YATES, J. W. Common sense needed in our milk laws; chaotic conditions of regulations revealed by comparison of rules in different jurisdictions. Milk Plant Monthly 27(5): 34, 36-41. May 1938. 44.8 C864

Address, Dairy Manufacturers' Conference, University of Wis.

Discusses and compares the regulations of different States and the milk ordinances of different cities. The overlapping and conflict of laws are causing much trouble and expense and are hampering expansion of the industry. Because of this situation much good milk is being rejected and does not have a free market while other milk, of inferior quality, is permitted to be sold.

*Not examined.

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659. EL ALZA indebida de precios de los artículos de primera necesidad. Indus. Azucarera 45: 737-745. Sept. 1939. 65.8 In22

Deals in part with Decree No. 41,545 which fixes initial maximum prices of milk and butter for public sale in the Federal Capital of Argentina.

660. ANDERSON, E. F. Milk price control in the United States, January 1, 1938. Pa. Agr. Expt. Sta. J. Ser. Paper 894, 7 p. 1939. 100 P381J

Excerpt from thesis entitled "Problems Arising from Public Regulation of Milk Prices with Special Reference to Pennsylvania," presented to the Pennsylvania State College in partial fulfillment of the degree of Master of Science, 1938.

Outlines the principal features of the marketing agreements under the Agricultural Adjustment Administration and lists the various agreements that were in effect on January 1, 1938. Reasons for control, methods, and features of the various milk orders are discussed.

661. ARNOLD, L. Pouring lip and cap as sanitary factors in bottled milk. J. Milk Technol. 2: 41-43. Jan. 1939. 44.8 J824

Sanitary standards that the closure of a glass bottle of milk should meet are given.

662. BALDWIN, F. B. Sanitary regulations as they affect the milk dealer. Milk Plant Monthly 28(5): 43-44. May 1939. 44.8 C864

Address, Joint Conference on Milk Sanitation, Pennsylvania Milk Industry, Harrisburg, Pennsylvania, February 9, 1939.

Milk dealers are responsible for both farm and plant sanitation. The two problems are related, since without proper plant sanitation, good production methods would be wasted. Uniformity and clarity, elimination of economics and politics, and common sense in inspections are principal requisites of sanitary regulations.

663. BARTLETT, R. W. Considerations in governmental price control of dairy products. Ill. Farm Econ. 45: 222-227. Feb. 1939. 275.28 H5

A study of the effect of price-fixing in the United States upon milk production and market milk consumption, and upon consumption of substitute products such as oleo-margarine and evaporated and condensed milk.

664. BARTLETT, R. W. Increasing milk consumption through use of flexible prices to producers and consumers. Vt. U. and State Agr. Col. Dept. of Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 18: 97-108. 1939. 44.9 V593

Outlines some of the advantages and disadvantages of milk price control, and suggests that the class I price for milk be established directly upon butter or condenser prices.

657. YOUNG, G. How the Board of Health and our industry may co-operate in the public's interest. Ice Cream J. 34: 14, 28, 40. Feb. 1938. 389.8 Ic2

Efforts of both are directed to producer and consumer education regarding the importance of a wholesome product, and the promotion of standardization of methods of milk production and handling, whether intended for fluid milk or for ice cream manufacture.

658. YOUNG, M. G. Ice cream regulations. Ice Cream Rev. 21(6): 28-30. Jan. 1938. 389.8 Ic22

Standards for ice cream require sanitary control through its production background on the farm and manufacturing process to the consumer. Discusses regulation of the raw products going into ice cream, the control problems arising since the development of counter freezers, the question of requiring pasteurization of mix and the manufacture of ice cream to be a continuous process, the sanitary conditions at the retail outlet, and the advisability of grading ice cream the same as milk.

665. BARTLETT, R. W. Price control of dairy production. Hoard's Dairyman 84: 372, 383. June 25, 1939. 44.8 H65

Study of the effects of price-fixing upon milk production, consumption of market milk, and the use of substitute products. Relatively high prices for market milk result in decreased consumption, increased consumption of butter substitutes, and a shift by farmers engaged in other enterprises to the production of milk.

666. BARTLETT, R. W. Some problems which milk producers and distributors are now facing. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 18: 44-55. 1939. 44.9 V593

These are: the adjustment to a declining population curve and to the leveling off of the upward trend in milk consumption, the substitution of canned milk in place of market milk, and the lowering of costs of production, transportation, and distribution.

667. BAUER, P. T. The fixing of retail milk prices. Manchester School Econ. and Social Studies. Oct. 1939. 280.8 M313

The action of the Milk Marketing Board of Great Britain in relation to the question of distributors' margins in milk retailing. Some attempt is made at an equitable solution of the problem. Through their effect on liquid sales, fixed retail prices are considered partially responsible for the considerable proportion of total supplies which had to be manufactured, and the consequent adverse effect on producers' returns which led to demands for higher wholesale prices.

668. BENDIXEN, H. A. For greatest good to all concerned: friendly producer-distributor relations. Milk Plant Monthly 28(1): 38, 40-41. Jan. 1939. 44.8 C864

To some extent a fair division of the consumer's milk dollar determines how happy the relationship between producer and dealer will be. Producer organization to control surplus production and stabilize prices, quality control, efficient operation, and cooperation between both parties are concomitants of this factor.

669. BENNETT, K. R. Comparative costs of fixed and variable dairy rations. N. Y. Agr. Col. Farm Econ. 115: 2827, 2833-2835. Nov. 1939. 280.8 C812

A variable dairy ration was worked out, variations in ingredient prices of which between 1931 and 1938 are indicated. Compared with a fixed dairy ration, it was always less expensive and by about the same proportionate amount.

670. BISHOP, G. R. Milk sales by stores in Buffalo. N. Y. Agr. Col. Farm Econ. 113: 2791-2793. May 1939. 280.8 C812

On March 1, 1937 there were 2816 independent stores and 391 chain stores that sold milk in the Buffalo, N. Y., market. The number of retail stores that sold milk was approximately the same as the number of stores that sold food at retail. Independent stores most commonly sold from 13 to 24 quarts of milk; sales within this range were made by 1019 of the 2816 stores. Chain stores most commonly sold from 25 to 36 quarts, sales within this range were made by 182 of the 391 chain stores. The total daily sales of milk by independent stores were 52,360 quarts; and by chain stores, 10,259 quarts. An average of 1.7 stops per independent store is recorded, and 1.1 stops per chain store.

671. BLANFORD, C. J. Day-of-the-week variations in the store sales of milk and cream in the New York market. N. Y. Agr. Col. Farm Econ. 112: 2755-2756. Apr. 1939. 280.8 C812

The year covered is 1937. Due to the fact that many retail food stores are closed all or part of the day on Sunday, milk and cream sales on Sunday were low and were high on Saturday and Monday. The degree of variation differed with the product, the type of store, and the type of trade served.

672. BLANFORD, C. J. Relation of family income to prices and sales of fresh milk, cream, and evaporated milk by stores in the New York market, June 1938. N. Y. Agr. Col. Farm Econ. 111: 2720-2723. Feb. 1939. 280.8 C812

Store sales of grade B milk per family were greatest in the low-income areas of the city. The stores serving families in low-income areas sold fresh milk at lower prices than those in the medium and high-income areas. Sales were greatest in areas where average selling prices were lowest, with variations noted in prices of fresh and evaporated milk. Comparatively few families in low income areas were willing to pay any premium for milk in paper containers. Heavy cream sales were more than twice as great in the high-income areas as in the low and showed similar tendencies in respect to price.

673. BLANFORD, C. J. Sales of cream by retail stores in the New York market, June 1938. In Brown, E. F. Milk Papers 5(92): 1-14. Jan.-May 1939. 281.344 B81
Issued as N. Y. Agr. Col. Dept. Agr. Econ. and Farm Mangt. A. E. 244, 14 p. Jan. 1939. 281.9 C81

About two-thirds of all cream distributed in New York City is sold for home consumption and one-third to soda fountains and restaurants. Of the quantity sold for home consumption, about seven-eighth is sold through stores. Retail prices of cream varied considerably and were lowest at stores serving low income families. The effect of price differentials upon relative sales of evaporated milk is also discussed.

674. BLANFORD, C. J. Sales of evaporated milk by retail stores in the New York market, June 1938. In Brown, E. F. Milk Papers 5(93): 1-10. Jan.-May 1939. 281.344 B81

Issued as N. Y. Agr. Col. Dept. Agr. Econ. and Farm Mangt. A. E. 245, 10 p. Jan. 1939. 281.9 C81

Estimated consumption of evaporated milk amounted to the equivalent of 1.7 tall cans per capita. Sales were greatest in low income areas where the price differential between evaporated milk and grade B milk was greatest. No clear evidence was found that evaporated milk is substituted for cream except in the low income areas.

675. BOOKER, H. World supply of fats and oils. Internat. Inst. Agr. Monthly B. Agr. Econ. and Sociol. 30: 243E-271E. June 1939. 280.29 In83

Includes section on butter, p. 252E-254E.

676. BOOKER, H. S. A survey of milk distribution. *Economica* (n. s.) 6(21): 78-85. Feb. 1939. 280.8 Ec73

Discusses milk consumption and milk distribution in part of Battersea, England, which is primarily a working class area. The most common consumption is one pint per day in the Western Section and half-a-pint per day in the poorer Eastern Section. In most roads about 60 percent of the milk is provided by two distributors and 90 percent by four. Throughout the whole area 60 percent of the milk is supplied by two dairies, divided fairly evenly between them. The other dairies do not serve so generally over the whole area, but specialize on particular sections. Some of the families buy from more than one supplier, making for higher cost of milk distribution. A monopoly by one dairyman in a specified district is considered advisable.

677. BOUCHER, G. P., and HOPPER, W. C. An economic study of cheese consumption in certain urban and rural districts of Canada. Canada Dept. Agr. Tech. B. 22, 34 p. Dec. 1939. 7 C16T

Housewives were interviewed and questionnaires completed during the summer of 1935 by enumerators who called at their homes. Information was obtained from 3,213 families and care was taken to secure a representative sample of the various localities in which the study was conducted. Significant variations in respect of cheese consumption which appeared to be related to differences in location, income, nationality and other factors are indicated.

678. BREED, R. S. The use of the financial stimulus in high grade milk production. Farm Res. [N. Y. State Sta.] 5(3): 10. July 1, 1939. 100 N48H

History of premium payments for grade A milk in New York shows that farmers respond to price stimulus by improving quality of product. Discusses application of premium payments to grade B milk.

679. BREMER, H. E. The present status of farm and plant inspection and quality control. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 18: 59-63. 1939. 44.9 V593

Contains information on the application of the Vermont milk control law.

680. BRIDGES, A., and SHERRARD, F. R. G. N. Changes in costs of milk production between the years 1934-5 and 1936-7. Farm Econ. 3: 28-31. Apr. 1939. 281.8 F223

Records of the costs of milk production on 251 farms in England and Wales producing milk for sale on a wholesale contract were kept for the 3 years, October-September 1934-35 to 1936-37. On these farms the number of cows increased in 1935-36 by 2.5 percent, but fell in the next year by 0.7 percent, a net increase of 1.8 percent over the 3 years. The increase in number of cows was accompanied by an increase in the production of milk. The net cost on the farm fell from 9.46d. in 1934-35 to 9.06d. in 1935-36, and rose to 9.45d. in 1936-37. These changes were due mainly to the influence of charges for feeds. Other items of cost also changed, notably the cost of labor, which showed a steady rise.

681. BRIDGES, A. The economics of machine-milking. Gt. Brit. Min. Agr. and Fisheries J. 46: 63-72. Apr. 1939. 10 G79J

Shows, for different periods between 1934 and 1938, increase in milking machines on 400-500 herds in England and Wales, relation of size of herd to number of milking machines, labor costs and net farm costs in milk production on herds milked by machine and by hand, labor costs on 24 herds before and after the installation of milking machines and costs of running and upkeep of the machines, net saving in labor by machine milking on 20 farms, and yields in gallons of milk per cow before and after introduction of the machine.

682. BRIDGES, A. Food costs in milk production 1935-6 to 1937-8. *Farm Econ.* 3: 43-46. July 1939. 281.8 F223

Feed costs and quantities consumed per cow during the three years covered are given for a large number of farms well distributed over the dairying districts of England and Wales. The quantity of milk produced for the period is also shown. The data are thought interesting because they may be used as standards by which farmers may test their efficiency as milk producers, because of the considerable rise in the prices of purchased feed during the three years, and because they illustrate the effect of seasonal conditions on feed requirements.

683. BROTHER, G. H. Plastic materials from farm products. *Indus. and Engin. Chem.* 31: 145-148. Feb. 1939. 381 J825

Discusses the use of casein for plastics and in the manufacture of a film material similar to cellophane and of synthetic wool.

684. BROWN, A. A. and DONLEY, J. E. Milk cartage in the Southwick-Agawam area of the Springfield milkshed. *Mass. Agr. Expt. Sta. B.* 363, 26 p. May 1939. 100 M38H

Analyzes milk cartage rates in the area for 1935 and suggests a reorganization of rate structure based on distance from market and farm location.

685. BROWN, A. A., and DONLEY, J. E. Product-costs of milk to dealers in the Springfield area, 1935. *Mass. Agr. Expt. Sta. B.* 365, 28 p. July, 1939. 100 M38S

Conditions in various Massachusetts secondary areas, not conducive to market stability, are uneven distribution of fluid outlets among dealers, rigidities in producer-distributor relationships, and the absence of reasonable relationships between the prices for milk disposed of as fluid and as surplus.

686. BROWN, B. Administrative law—price fixing—Oreg. Milk Control Act. *Oreg. Law Rev.* 19: 38-50. Dec. 1939. *Libr. Cong.*

Discusses the validity of the Act in the light of court decisions.

687. BROWN, E. F. A conspiracy against business? *Milk Dealer* 28(6): 43, 66, 68, 70. Mar. 1939. 44.8 M595

The author comments on the unfair criticism of big business in general and says, "the milk industry is an excellent example of a big business which has received an inordinate amount of unjust criticism in the press." Modest profits made and records of achievements of the industry are cited to prove such criticism unwarranted.

688. BROWN, J. H. Revision of methods and standards for certified milk. *Amer. J. Pub. Health* 29: 355-358. Apr. 1939. 449.9 Am3J

Improvements in bacteriological control procedures for certified milk are described. Herd supervision is being increased, in view of the occurrence of bovine mastitis. Special winter feeding of cows is urged for better flavor and nutritive quality of winter milk.

689. BUCKINGHAM, S. M. Dealers' spread in Connecticut. In Brown, E. F. *Milk Papers* 5(86): 1-9. Jan.-May 1939. 281.344 B81

"From the Report of Proceedings, 57th Annual convention, Connecticut Dairymen's Association, January 1939." Based on a survey made by S. W. Tator and H. P. Snow.

In this study of profit and loss statements from 47 merchant dealers, 25 dealers showed profits and 22 losses. Includes a table in which the data submitted by the dealers are summarized.

690. BUELL, R. L. Death by tariff. Protectionism in State and Federal legislation. *Pub. Policy Pam.* 27, 40 p. 1939. 280.12 P96

Includes discussion of efforts to exclude foreign butter and to control the manufacture and sale of oleomargarine, and on interstate trade barriers for milk.

691. BUTLER, J. B. Report on the cost of milk production, 1937-1938. *Harper Adams Agr. Col. Dept. of Econ. Farmer's Rpt.* 2, 13 p. Jan. 1939. 103 H234

Gives data on feed, labor, herd depreciation, and miscellaneous costs for 54 farms in the West Midland Province.

692. BUTTERWORTH, T. H. Trends in milk control in Texas promote voluntary improvement of quality by milk dealers. *Milk Plant Monthly* 28(3): 23-26. Mar. 1939. 44.8 C864

Milk control in Texas has been aided by the adoption of the Standard Milk Ordinance and Code of the U. S. Public Health Service and by the passage in 1937 of the Texas Milk Grading and Labeling Law. Where grading exists it must be in conformance with this Code. Provisions of the law are reviewed and their application discussed.

693. CANADA. MARKETING SERVICE. Agricultural marketing legislation, 1939. 18 p. Ottawa? 1939. 280.3 C1662

Reviews legislation enacted in 1939 to aid in the distribution of surplus butter and to promote the production of high quality cheese.

694. CHINN, A. Consumer attitude toward ice cream. *Ohio State U. Col. Agr. and Domestic Sci. Ohio State U. Dairy Technol. Conf. of Mater.* Presented 1939: 107-110. 44.9 Oh35M

Considers quality of the product in relation to consumer education.

695. COHEN, R. Milk policy and milk prices. *Econ. J.* 49: 79-90. Mar. 1939. 280.8 Ec72

Two chief objectives of milk policy in Great Britain are stressed: an increased consumption of liquid milk and the establishment of a reasonable standard of life for milk producers. One method of increasing consumption would be to lower generally the price of liquid milk. This article deals almost wholly with the policy which could be adopted to achieve this end.

696. COHEN, R. Variations in liquid milk consumption. *Farm Econ.* 3: 51-54. July 1939. 281.8 F223

The Committee of Investigation for England put forward the view, which was accepted by the Milk Marketing Board that the liquid milk consumer should only pay such a price for his milk as would cover the costs of producing the amount consumed liquid, plus a safety margin. This safety margin has been estimated at 10 percent at the season of shortest production. Presumably this margin makes some allowance for variations in production and in consumption within the month. Gives information on these shorter period variations in consumption, and on their relevance to the margin necessary throughout the year.

697. COLVIN, E. M. Transportation of agricultural products in the United States, 1920-June 1939; a selected list of references relating to the various phases of railway, motor, and water carrier transportation. *U. S. Bur. Agr. Econ. Libr. Agr. Econ. Bibliog.* 81, 3 v. 1939. 1.9 Ec73A

Contains references on transportation of and freight rates on milk, butter, cheese and dairy products.

698. COOKE, B. A. The development and operation of milk control boards. *Sci. Agr.* 20(1): 29-38. Sept. 1939. 7 Sci2

Discusses the basis of price fixing, production cost, milk control legislation, and cooperation with health authorities in Canada.

699. COX, R. W., and WAITE, W. C. Consumption of butter by Minneapolis families. *Minn. U. Agr. Ext. Farm Business Notes* 193: 3. Jan. 1939. 275.29 M663

Presents data on expenditure for and use of butter for 2,350 families as of 1938.

700. CUTTING milk delivery costs by replacing obsolete trucks with new equipment. *Milk Dealer* 28(11): 30-31, 50, 52, 54. Aug. 1939. 44.8 M595

Data covering 75 delivery trucks and based upon operating costs for 1937 when old trucks were run, and for 1938 when new trucks were purchased, show a \$663 yearly average saving per truck after replacement.

701. CUTTING milk delivery costs through discount plans; experiments being carried on in Minneapolis, Minn. *Milk Dealer* 28(5): 54, 56. Feb. 1939. 44.8 M595

An account of the operation of the Elwell Plan for selling dairy products, the basis being a platform price plus cost of delivery. Under the plan each customer is charged 13 cents for the first quart of milk purchased, and 7 cents for each additional quart.

702. DAHLBERG, A. C., HENING, J. C., and DURHAM, H. L. Reduction of milk losses in milk plants. N. Y. State Assoc. Dairy and Milk Insp., Ann. Rpt. (1938) 12: 187-194. 1939. 44.9 N4833

A study of conditions in eight milk-receiving plants indicates that losses may be materially reduced by proper selection and installation of equipment together with sound operating procedures. Suggestions as to how this waste may be reduced are offered.

703. DANKERS, W. H. Surplus problems in dairying. Minn. U. Agr. Ext. Farm Business Notes 199: 3. July 1939. 275.29 M663

States that the situation can be bettered only through increased industrial activity and consumer purchasing power, lower retail prices, or curtailment of production.

704. DEVELOPMENT and present status of the big milk bottle. *Milk Plant Monthly* 28(9): 24-28. Sept. 1939. 44.8 C864

Market requirements, practices and opinions of milk dealers in regard to the gallon jug and the half-gallon bottle are indicated. The majority of the distributors with whom the large container was discussed favored the two-quart or half-gallon bottle over the gallon container.

705. DONLEY, J. E. Towards a perfect milk market. Mass. Agr. Expt. Sta. B. 366, 28 p. Nov. 1939. 100 N38S
Discusses economic aspects of marketing fluid milk in Worcester, Mass., with specific reference to supply and sale relationships, including prices. An equilibrium of supply and demand has been attained in this area. Transportation might be more efficiently organized.

706. DOW, G. F. An economic study of milk distribution in Maine markets. Maine Agr. Expt. Sta. B. 395: 523-674. Mar. 1939. 100 M28S

A comprehensive analysis of the factors affecting distribution costs based on detailed records procured by the survey method from 266 milk distributors in 10 Maine market areas for the years ending April 30, 1935 and 1936. These distributors represented 43 percent of all distributors and they handled three-fourths of the milk and cream sold in these markets.

707. DOW, G. F. Reducing cost of distributing milk in Maine. *J. Farm Econ.* 21: 309-314. Feb. 1939. 280.8 J822

Recommends that special attention be given to the following factors: larger volume per distributor; greater volume of sales per mile traveled on milk routes; stricter credit policy to reduce bad debts and collection costs; reduction of bottle losses; consideration of the use of horses instead of motor trucks on milk routes up to 15 miles in length; employment in general of only one man to a route; and curtailment of special services such as special deliveries.

708. DURAND, L., Jr. Cheese region of southeastern Wisconsin. *Econ. Geog.* 15: 283-292. July, 1939. 278.8 Ec7

The cheese industry in this area is built upon the product of 220 factories. Not only do they compete with one another for territory and milk, but with the condensery and large urban cheese factory. The shift has been both to larger factories, with fewer manufacturing units, and to greater variety of types of cheese.

709. DURYEE, W. B. "Effect of milk control upon spreads, utilization, production and consumption of milk." In Brown, E. F. *Milk Papers* 6(155): 1-19. June-Dec. 1939. 281.344 B81

Opinions vary as to the effect of milk control on spreads; however in certain markets the advent of control has brought a reduction in spread and has increased production. Whether milk control has caused a decrease in consumption is a matter of disagreement and probably varies according to policies of the various boards.

710. DURYEE, W. B. Stimulating milk consumption. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 18: 22-25. 1939. 44.9 V593

Constant effort in maintaining quality, reducing costs of production and distribution, sound merchandising, and building public confidence is required to accomplish this aim.

711. ELLENBERGER, H. B. Lower production costs essential. *Amer. Prod. Rev.* 88: 94-96. May 24, 1939. 286.85 N482

Also with title Lower Production Costs a Vital Factor, in *Hoard's Dairyman* 84: 335. June 10, 1939. 44.8 H65
Address, Production Section, 31st Annual Convention of the International Association of Milk Dealers, Cleveland, Ohio, Oct. 17, 1938.

Milk can and will be produced more cheaply when approved modern methods are more generally practiced on dairy farms. More milk would be used, the consumer would be benefited, and profits to the producer and distributor would be more certain if milk could be produced at less cost.

712. FLORIDA. DEPT. OF AGRICULTURE. Twenty-fifth biennial report...from July 1, 1936, to June 30, 1938. Tallahassee, 1939. 220 p. 2 F66R

Includes an account of the work of the State Milk Inspection Division, information on out-of-State importations of milk and cream, dairying in the Miami area, and herd replacements in the State.

713. FOELSCH, G. G. Estimates of gross and net weights of butter in various types of packages at New York, Chicago, Boston, and Philadelphia. Washington, U. S. Bur. Agr. Econ., 1939. 13 p. 1.9 Ec724Est

Results of a survey in 1938 of the four markets, for the use of the Bureau of Agricultural Economics in compiling information regarding market receipts. Weights of the various types of containers are given.

714. FOWLER, H. C. Statistical approach to the feed-milk production problem. *New England Res. Council Mktg. and Food Supply. Proc.* 1939: 44-47. 252.004 N443M

Includes data on grain costs.

715. FRIBLEY, Mrs. W. E. The distributor is the chief factor in the successful and adequate consumption of dairy products. *Milk Plant Monthly* 28: 52-54, 56. June 1939. 44.8 C864

Discusses the place of the distributor in promoting the utilization of dairy products. It is frequently indifference rather than price that keeps women from buying more dairy products.

716. FROKER, R. K., COLEBANK, A. W., and HOFFMAN, A. C. Large-scale organization in the dairy industry. U. S. D. A. C. 527, 68 p. July, 1939. 1 Ag84C

Gives data on the growth of large-scale dairy concerns, financial tendencies of the leading dairy companies, dairy organization and plant ownership in Wisconsin, and mass distribution of dairy products. Also discusses sources of supply and sales outlets of the dairy companies and the importance of patent control in the industry.

717. FUCHS, A. W., and FRANK, L. C. Milk supplies and their control in American urban communities of over 1,000 population in 1936. U. S. Pub. Health Serv. B. 245, 70 p. 1939. 151.66 B87

Based on a questionnaire survey covering 2,654 municipalities representing 41 percent of the total number and 63 percent of the combined population of all municipalities of over 1,000 population in the United States. Presents data on production and consumption of fluid market milk, volume and price of various grades, pasteurization, tuberculin and abortion tests, legal requirements, state and local control organization, inspection, sampling and bacterial quality, and cost of local milk control.

718. FUCHS, A. W. The need for uniform dairy sanitation legislation. Region. Conf. on Dairy Prob. 1939: 8-13. 44.9 R26

Shows how uniform standards make for consumer confidence in the safety and quality of the milk supply and for effective sanitary control. Cites the U. S. Public Health Service Milk Ordinance.

719. GASSER, E. Present state of the dairying industry in the various countries. Internatl. Inst. Agr. Internatl. Rev. Agr. 27: 91T-102T; 189T-196T; 424T-429T; 28: 51T-62T; 89T-97T; 133T-139T; 209T-215T; 216T-223T; 441T-448T; 29: 61T-73T; 242T-250T; 278T-292T; 313T-333T; 30: 144T-151T; 183T-195T; 342T-350T. Ref. 1936-1939. 241 In82A

A series of articles reporting on conditions in the following countries: Switzerland, Denmark, Belgium, Poland, Bulgaria, Latvia, Lithuania, Estonia, Finland, Norway, Iceland, Sweden, Rumania, Albania, Yugoslavia and Greece. For each country, information is given on dairy species and breeds, production of milk, cheese, butter and other dairy products. Percentages of total milk production utilized for human consumption and in the manufacture of dairy products are shown. There is a bibliography at the end of each article.

720. GAUMNITZ, E. W. Marketing agreement and order programs of the Federal Government. Pa. Dairymen's Assoc. Rpt. 14: 14-16, 18-20. 1939. 44.9 P384

Describes the history of the Federal regulation of marketing fluid milk and other dairy products and discusses some of the problems encountered and some of the things necessary for the program to work in the interests of the dairy industry and the public.

721. GEYER, D. N. Market milk problems in New England. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 18: 41-44. 1939. 44.9 V593

Discusses the subject from the standpoints of production, processing, and sales.

722. GILTNER, W. Milk hygiene in the United States. Internatl. Vet. Cong. (1938). Rpt. 13(2): 1143-1153. 1939. 41.9 In843

Similar article in Vet. Med. 34(6): 346-351. June 1939. 41.8 M69

On the regulation of milk sanitation, with a discussion of protection of milk from contamination by human pathogens.

723. GLASS CONTAINER ASSOCIATION OF AMERICA. Milk container costs; a study in comparisons. N. Y.? 1939. 22 p. 280.344 G46

A study of milk packaging costs in seven dairies located in the East North Central and Middle Atlantic States. Of these seven dairies, four use both glass and paper containers; one, glass only; and two, paper only.

724. GLASS CONTAINER ASSOCIATION OF AMERICA. Your milk container; a study of its competitive progress in other markets. In Brown, E. F. Milk Papers 6(130): 1-23. June-Dec. 1939. 281.344 B81

This study of conditions in 12 markets, as of August 1939, shows that consumers prefer the glass bottle to paper containers and that milk costs approximately 1¢ a quart less to package and deliver when glass bottles are used.

725. GOVERNMENT measures for the relief of agriculture in Sweden since 1930. Svenska Handelsbanken. Index 1939 (sup.), 32 p. Ref. Mar. 1939. 280.8 In23

Contains section on milk control, p. 9-12, which discusses the operation of the Swedish government's plan designed mainly to keep up the price of butter.

726. GT. BRIT. FOOD COUNCIL. Report... to the President of the Board of Trade, 1936-1938. London, H. M. Stationery Off., 1937-1939. 3 v. 284.39 G792

Contains sections on milk and milk products and marketing schemes (1936), which show developments for each year, with emphasis on prices.

727. GT. BRIT. MILK MARKETING BOARD. Milk marketing scheme; five years' review, 1933-1938. London, 1939? 55 p. 280.3449 G79M

Achievements of the first five years are summarized as follows: Prices have been stabilized, and the market has been widened; production of graded milk has been expanded; cost of transportation has been reduced; the farm cheesemaking craft has been revived; supplies have been allocated in time of scarcity; the board is financing an investigation of the costs of milk production; producers own a chain of creameries in various parts of the country. Outlines a similar program for the future.

728. GT. BRIT. MILK MARKETING BOARD. Sixth annual general meeting of registered producers, report and accounts, 1st April, 1938-31st March, 1939. London, 1939. 20 p. 280.3449 G79A

Report on the working of the Milk Marketing Scheme.

729. GT. BRIT. MILK PRODUCTS MARKETING BOARD. Scheme under the Agricultural Marketing Acts, 1931 to 1933, regulating the marketing of milk products. London, H. M. Stationery Off., 1939. 31 p. 280.344 G796

Gives details of the scheme, which covers butter, cheese, condensed milk, condensed skim milk, dried milk, dried skimmed milk, cream and sterilized cream.

730. GT. BRIT. MINISTRY OF AGRICULTURE AND FISHERIES. Arrangements under the Milk Act, 1934 to 1938, for increasing the demand for milk within the area of the Milk Marketing Board for England and Wales by the supply of milk to nursing and expectant mothers and children under five years of age at reduced rates... London, H. M. Stationery Off., 1939. 4 p. 280.344 G792Arm

Price control of milk falling within this category.

731. GT. BRIT. MINISTRY OF HEALTH. Scheme for the supply of milk at a reduced rate for mothers and children. London, H. M. Stationery Off., 1939. 16 p. 280.344 G797

Introductory letter and explanatory memorandum discuss the purpose and functions of the scheme.

732. HALE, R. W. Cost of rearing dairy heifers. Gt. Brit. Min. Agr. J. 46: 268-276. June 1939. 10 G79J

During 1934-38, 69 heifers were reared by the Agricultural Research Institute of Northern Ireland at an average cost of £22 per head. This was £2 or £3 higher than the price at which heifers of roughly similar type could have been purchased in the open market at the same time, but the Institute herd was being graded up and was producing a tuberculin-tested grade of milk. The components entering into this figure are cost of keep, allowance for heifers not calved, and credit balance on stock account.

733. HARE, H. R. Factors affecting efficiency in dairy farming. Sci. Agr. 20: 51-60. Sept. 1939. 7 Sci2

A management study of Ontario dairy farms for the year ending June 30, 1937, which includes data on the cost of milk per cwt. as related to numerous given factors.

734. HARE, H. R. Rating the success of farm business. Econ. Annal. 9: 19-23. Apr. 1939. 281.8 Ec72

Based on data from the Ontario whole milk shipper farms for the year ending June 20, 1937. Shows the effect of varying degrees of efficiency in the five farm management factors of size of business, crop production, livestock and livestock product production (milk production per cow), use of labor and of capital on operator labor earnings and on the cost of producing 100 pounds of milk. Presents an analysis of the data relating to the business of the Ontario whole milk producers which shows the cumulative effect of above-average efficiency in these factors.

735. HARMON, E. M. How the New York milk marketing agreement works. Amer. Agr. 136(3): 5, 19. Feb. 4, 1939. 6 Am3

Deals with milk prices, and the Producer Settlement Fund. Mentions the Agricultural Marketing Act, and the New York State Rogers-Allen Law of 1937.

736. HARRY, E. L., and PHILLIPS, J. R. E. Milk consumption in a North Wales slate quarrying community. *Welsh J. Agr.* 15: 41-54. Jan. 1939. 10 W46

In addition to information on household constitution, and quantities and values of fresh and other milks purchased, details of use made of fresh milk, number of retailers supplying milk at each household, and number of deliveries per household per day are shown for 185 households containing a total of 596 persons. The relation between income and milk consumption of these families is brought out.

737. HASKELL, W. H. Milk supply control. *Amer. Municipalities* 63(4): 17-21. Jan. 1939. Libr. Cong.
The value of the U. S. Public Health Service Milk Ordinance in promoting uniform milk regulatory standards is set forth. Its main characteristics are outlined and discussed. The ordinance is subject to annual review, thus admitting of desirable changes.

738. HEPBURN, N. W. Labeling provisions of the new Federal Food and Drug Act. *Natl. Butter and Cheese J.* 30(5): 14-15, 23. May 1939. 286.85 B98Bu

Suggestions are offered for the labeling of butter cartons and wrappers to conform with the provisions of the new Federal law. The use of certain terms in this connection is discussed.

739. HOFFMAN, A. C. The patent situation in the food industries. In Brown, E. F. *Milk Papers* 6(114): 1-13. June-Dec. 1939. 281.344 B81

Issued separately by the U. S. Bureau of Agricultural Economics. 1.941 M1P27

Patents affecting the dairy industry, their holders, and the dates of expiration are discussed in detail. Control of important processes by means of patent rights has given the holder commercial advantages and in a few cases seems to be an important factor in the growth of some large concerns.

740. HOLM, G. E. Industrial products of the dairy industry. *Indus. and Engin. Chem. News Ed.* 17: 348-349. May 20, 1939. 381 J825N

Products derived from the 53,000,000,000 pounds of skim milk produced annually in the United States, including lactose, lactic acid and casein, are discussed, quantities produced are noted and possible industrial uses are considered. A statistical flow sheet showing production of milk and products derived therefrom, United States, 1937, is included.

741. HOOD, E. G., WHITE, A. H., and FELLOWS, E. S. Wood taint in butter boxes. *Ottawa?* 1939. 14 p. 280.344 H76

Experiments conducted by the Division of Dairy Research, Science Service, of the Dominion Department of Agriculture and the Forest Products Laboratories of Canada, of the Lands, Parks, and Forests Branch of the Department of Mines and Resources, at the request and with the assistance of the British Columbia Lumber and Shingle Manufacturers Association. Western hemlock, Sitka spruce, amabilis fir and grand fir were tested. Types of lining employed were aluminum foil, single parchments and single parchment with circular liner, all of 40-pound weight.

742. HOPSON, G. H. Quality milk and its control. *Amer. Vet. Med. Assoc. J.* 94(6, pt. 2): 378-382. Apr. 1939. 41.8 Am3

Presented at the seventy-fifth annual meeting of the American Veterinary Medical Association, New York, N. Y., July 5-9, 1938.

Gives results of tests of over 2,670 consumers' doorstep samples of certified milk during 1937.

743. HUMRICKHOUSE, C. W. The milk control law in Indiana. *Mo. Farmer* 31(14): 3, 7. July 15, 1939. 6 M696

Deals with costs of production and distribution, and with the effect of this law on milk prices.

744. ILLINOIS DAIRY PRODUCTS ASSOCIATION. What the farmer gets and what the consumer has to pay under milk control. In Brown, E. F. *Milk Papers* 6(126): 1-12. June-Dec. 1939. 281.344 B81

Results of the study comparing prices in Chicago with prices in several middle western cities, including Milwaukee, St. Paul and Minneapolis, show that consumers in regulated markets have been forced to pay high prices for their milk and that farmers whose prices are controlled received little, if any more, real income than farmers supplying the Chicago market under a free price system.

745. INCREASING cheese factory income with mechanical refrigeration. *Natl. Butter and Cheese J.* 30(10): 14-15, 50. Oct. 1939. 286.85 B98Bu

Control of temperature and humidity in the curing room creates savings and increases profits by preventing development of rind rot, pin holes, or other defects which would lower the value of the product, and by reducing shrinkage and weight loss to a minimum.

746. INTERNATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS. Ice cream can analysis. *Internatl. Assoc. Ice Cream Mfrs. Spec. B.* 59, 23 p. Feb. 1939. 389.9 In83S

Includes material on the plant costs of metal and paper cans, and of the effect on distribution costs of the use of each type of can.

747. INTERNATIONAL INSTITUTE OF AGRICULTURE. International chronicle of agriculture: United Kingdom; milk market. *Internatl. Inst. Agr. Monthly B. Agr. Econ. and Sociol.* 30: 170E-182E. Apr. 1939. 280.29 In83

The milk marketing schemes of England and Wales, Scotland, and Northern Ireland are discussed. Tables are given for milk prices and sales (including sales for manufacture) in the area of the English Milk Marketing Scheme, and of the Scottish Milk Marketing Scheme, 1933/34-1937/38; milk sold to creameries for manufacture, Northern Ireland, 1934/35-1937/38; and prices fixed for liquid milk consumption, Northern Ireland, 1934/35-1938/39.

748. JONES, E. H. Milk control in Vermont—past, present, and future. *Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib.* 18: 9-14. 1939. 44.9 V593

The milk control law has eliminated from most markets in Vermont the price cutting, the giving of free merchandise, and other detrimental trade practices formerly prevalent.

749. KELLY, E. Supervision and inspection of milk. *U. S. D. A. Ybk.* 1939: 360-363. 1 Ag84Y

A brief account in which it is pointed out that maintenance of nutritive value, prevention of fraud and sanitation are the main factors involved in the inspection of market milk.

750. KENNEDY, M. Policies that have promoted the growth of the Rochester dairy company, Rochester, Minnesota. *Milk Plant Monthly* 28(3): 28-33. Mar. 1939. 44.8 C864

Quality control, farm inspection, cooperation with health authorities, premiums to farmers for high quality, premiums to operators for superior efficiency and active promotional work, are among the policies to which the success and growth of the company are attributed.

751. KENNEDY, M. Sliding scale of prices takes delivery costs into consideration. *Milk Plant Monthly* 28(6): 58-66. June 1939. 44.8 C864

Discusses systems adopted by milk dealers in Minnesota, Iowa, and Wisconsin allowing discounts for quantity purchases and thus increasing milk sales.

752. KESSLER, L. M. Cost control in the ice cream industry. *Ice Cream Trade J.* 35(9): 10-11, 14, 28-30. Sept. 1939. 389.8 Ic2

Certain concepts of cost in the ice cream industry and their control are advanced.

753. KLINEFELTER, H. E. Missouri's filled milk case. *Mo. Farmer* 31(6): 8. Aug. 15, 1939. 6 M696

Account of litigation resulting from violation of the Missouri Filled Milk Law.

754. KLUETER, H. Is the creamery industry obligated to consider the wishes of the consumer? In Consolidated Reporting Co. 1938 butter and cheese industry symposium, p. 156-160. New York, 1939? 44 C764

Deals mainly with cream and butter grading and standards, with reference to conditions in Wisconsin.

755. KOLLER, E. F. Recent trends in the Minnesota dairy industry. Minn. U. Dept. Agr. Farm Business Notes 196: 1-2. Apr. 1939. 275.29 M663

Between 1920 and 1938, the dairy industry in Minnesota expanded in nearly all its branches including the number of milk cows, quantity of milk produced, and the production of butter, cheese, and other milk products. A significant trend in the marketing of butter has been that of more direct sale with less dependence on wholesale receivers.

756. KRUISHEER, C. I. Methods of dairy control in Holland and an analytical study on the quality and speciality the firmness of butter. Chem. & Indus. 58: 732-740. Aug. 5, 1939. 382 M31C

Shows how standards are maintained by butter and cheese control stations supported by the producers and under Government supervision. Milk powder, condensed milk, and other milk products are subject to control by a special station at the Hague. The second half of the article reviews the research work of the Government Dairy Station at Leyden.

757. LECUYER, R. Ten-year cost study, production of fluid milk, region of Montreal. Quebec, Dept. Agr. 1939? 22 p. 281.344 Q3

A study begun in October 1929 in cooperation with the Economics Department of Macdonald College McGill University. Information was obtained from 225 individual farm records during the first year, and from subsequent surveys.

758. LET 'EM drink Grade A. The milk industry sells service. Most of its customers would rather have milk... at 4 cents less. Fortune 20(5): 82-84, 128, 131-132, 134, 136. Nov. 1939. 110 F772

Points out that high prices result in reduced consumption; that prices are too high and could be reduced; that milk can be sold through stores at 4 cents less a quart than through home delivery; and that farmers and labor in some markets have raised prices and wages to uneconomic levels.

759. LITTLE, J. L. A new, quick and accurate method of standardizing milk by the slide rule; Milk Plant Monthly 28(1): 22-25. Jan. 1939. 44.8 C864

A modification of the slide rule is used in this method of standardizing milk and cream for butterfat. Found applicable to any type of standardizing problem, the method, it is claimed, accounts for the butterfat in each ingredient entering into the standardized product so that proof will be completed along with the standardizing calculations. An explanation of the procedure is given for each kind of standardizing and calculation commonly encountered.

760. LONG, W. H. Is "milk-and-feed" system justified? Farmer and Stock-Breeder 53(2579):666. Mar. 14, 1939. 10 F228

Analysis of figures of six reasonably representative Yorkshire farms for the contract year 1936/37. Cows in "milk-and-feed" herds cost nearly £12 a year more than cows in normal herds. Production per stall, however, was 73 gal. greater.

761. LONG, W. H. Three years' milk costs in Yorkshire. Farm Econ. 3: 47-48. July 1939. 281.8 F223

A comparison of the costs on 35 identical farms, 1935/36 to 1937/38, shows that the average cost rose from 10.6d. to 12.0d. per gal.

762. MCCARTHY, D. A. From raw to pasteurized milk. Milk Dealer 28: 39, 60. Mar. 1939. 44.8 M595

Also in Milk Plant Monthly 28: 39. Apr. 1939.

44.8 C864
Results of a survey of milk distributors in Luzerne County, Pa., who installed pasteurizing equipment during the previous 10 years, show that nearly all the distributors increased their daily output thereby, and that the changes were made, voluntarily for the most part, in accordance with consumer demand and milk sanitation standards.

763. MCDONOUGH, W. F. State regulations covering the fat testing of milk. N. Y. State Assoc. Dairy and Milk Insp., Ann. Rpt. (1938) 12: 121-122, 124-127. 1939. 44.9 N4833

Discusses New York State laws relating to fat tests and fat testing of milk. Checking the accuracy of work done by licensed testers employed by those who purchase milk from producers is a major project of the Division of Milk Control. Records indicate that somewhat over 1,400 plants receiving milk from producers buy on fat test and require the milk to be tested.

764. MACKINTOSH, J. The evolution of milk-production. In Agriculture in the twentieth century: essays on research, practice, and organization to be presented to Sir Daniel Hall, p. 397-421. Oxford, Clarendon Press, 1939. 30.4 Ag8

Traces the development of dairy science in Great Britain and its application to milk production, including sanitary quality control. Discusses briefly some features and results of the Milk Marketing Scheme.

765. MACY, H., and OLSON, J. C. Preliminary observations on the treatment of parchment paper with sodium or calcium propionate. J. Dairy Sci. 22(7): 527-534. July 1939. 44.8 J822

Experiments to determine the most practical and efficient methods for inhibiting surface mold growth on butter.

766. MALOTT, D. W., and MARTIN, B. F. The agricultural industries. New York, McGraw-Hill, 1939. 483 p. Ref. 281.12 M29

Presents the business aspects of purchasing, processing, financing, and marketing the leading agricultural raw materials. Analyzes the business problems peculiar to these industries. Chapter 2, deals with the dairy industry.

767. MARION, J. A. Problems in the butter market. Eastern Canada Conf. on the Mktg. of Farm Prod. Proc. 1939: 71-75. 280.39 Ea73

Problems of overproduction and disposal of the surplus are discussed. Increasing the production of cheese, for which there is a market in Britain so long as it is offered in quantities to provide for a continuous supply, is suggested as a possible solution. Attention is also called to the Australian Equilization Scheme, under which producers have regulated the home price through their power to export the surplus month by month and to require every creamery in Australia to bear its share of the loss in exporting such butter.

768. MARQUARDT, J. C. Proposed changes in scoring Cheddar cheese. Natl. Butter and Cheese J. 30(4): 12, 13. Apr. 1939. 286.85 B98Bu

Recommendations for crediting desirable qualities of the product, rather than using standards which are mainly measures of defects.

769. MASUROVSKY, B. I. Milkmeter--a slide rule for the dairy industries. J. Milk Technol. 2(4): 174. July 1939. 44.8 J824

The rule is used to calculate the milk-solids-not-fat when the specific gravity and butterfat content are known.

770. MASUROVSKY, B. I. Slide rule aids in standardizing milk and cream. Food Indus. 11(9): 489. Sept. 1939. 389.8 F737

A simplified method, with examples illustrating its application.

771. MAYBERRY, R. H. The Canadian cheese industry, with special reference to export. Eastern Canada Conf. on the Mktg. of Farm Prod. Proc. 1939: 76-81. 280.39 Ea73

Mainly a discussion of the problems confronting the distribution of Canadian cheese, with recommendations for improvement.

772. MELDER, F. E. Trade barriers and dairy products. Chicago, 1939. 7 p. (Council of state govt. Trade barrier research bull. ser.) 286 C832

Market protection takes various forms, including control of wholesale and retail prices of fluid milk and the exclusion of competitive milk or cream from a local market. Measures which tend to cause this condition, although they may be merely incidental to achieving some other public purpose, constitute trade barriers. He discusses the operation of these measures in relation to the trade barrier problem which exists in the dairy industry.

773. MENAFRA, A. Selective distribution, a unique dealer sales policy. *Ice Cream Trade J.* 35(12): 8-10, 59. Dec. 1939. 389.8 1c2

The principle of select representation, plus an "exclusive agency," in the dealer relationships of one firm has helped bring a higher-than-average price and built volume consistently for its products since the program was first inaugurated.

774. MERKET, H. Milchwirtschaftliche marktordeung als beispiel. *Internatl. Agrar-Rundschau* 1939(9): 19-21. Sept. 1939. 28 In89

The controlled milk market in Germany is credited with raising the prices to producers, building up the milk industry, reducing the costs of distribution, and improving the quality of milk products with special reference to the needs of the consumers.

775. MICHIGAN MILK PRODUCERS ASSOCIATION. Detroit-Michigan dairy products prices, 1928-1938. 23 p. 1939. 284.344 M58

Tables give monthly prices for all Detroit milk, Detroit sales milk, surplus milk, net base price, and condensary prices - all f. o. b. country; 3.5 times average Chicago 92-score butter prices, and Chicago butter prices; cents and percent Detroit sales milk was above all Detroit milk, condensary prices, and 3.5 times Chicago butter prices; cents and percent all Detroit milk was above condensary prices and 3.5 times Chicago butter prices; and various index numbers and relatives.

776. MILEY, D. G. A summary of 12 dairy farm records, Jacksonville area, for the two-year period from July 1, 1937 to June 30, 1939. Gainesville, Fla. Univ. Agr. Ext. Serv., 1939. 25 p. 275.29 F661S

The net cost for producing and marketing milk on the 5 retail dairy farms for the two-years was \$0.453 per gal. and the value of all milk produced was \$0.469. On the 7 wholesale dairy farms the net cost of producing and marketing milk for the period was \$3.02 per cwt. and the value of all milk produced was \$2.97.

777. MILK IN CHICAGO. When Meadowmoor Dairies cut the price of milk two cents, the bombs began to burst. Then came the U. S. Government with charges of conspiracy. *Fortune* 20(5): 80-81, 124, 126, 128. Nov. 1939. 110 F772

Discusses briefly the milk problem and describes the system, adopted by Meadowmoor Dairies, for the distribution of milk through stores at cut-rate prices. Tells of the milk strike of Jan. 1934, and of the efforts of the U. S. Agricultural Adjustment Administration to stabilize prices in the market.

778. MILK INDUSTRY FOUNDATION. Milk for millions. New York, 1939. 20 p. 280.344 M592Mm

Includes information on prices and milk economics. Shows the higher prices paid by milk companies for milk they sell in bottles, the relationship between 21 milk companies' selling prices and cost prices per quart, and how these milk companies' sales to the public were divided among their different products.

779. MILK RESEARCH COUNCIL. Comparative study of attitudes of housewives, executives and milk-route men in the New York City area. 1. Housewives. In Brown, E. F. *Milk Papers* 5(97): 1-49. Jan.-May 1939. 281.344 B81

Sanford Griffith was in charge of the study and was assisted by Marjorie Fiske and Alvin Meyrowitz.

Based on interviews with 1,025 housewives. Discusses milk buying habits, brand buying habits, reasons for brand selection, familiarity with the milk industry and factors influential in milk buying. Questionnaire used by the interviewers is appended.

780. MILK RESEARCH COUNCIL. Housewives' attitudes toward the milk companies in New York City; a preliminary survey. New York, 1939. 38 p. 281.344 M59H

Market Analysts, Inc., joint authors.

Based on surveys of a conservative low-income area in Manhattan, an average low-income area in Brooklyn, and a radical (mainly cooperatively housed) area in the Bronx. Reports attitudes as to prices, propaganda against high prices, and government control of the milk industry.

781. MILLER, L. C. Laws forced by farm groups halt trade in processed foods. *Food Indus.* 11: 500-503. Sept. 1939. 389.8 F737

Shows how barriers to out-of-State trade are created by the administration of State dairy laws.

782. MIOLLIS, R. Suggested standards for the cheese industry. *Natl. Butter and Cheese J.* 30(3): 64-65. Mar. 1939. 286.85 B98Bu

Advocates the adoption of new measures, in line with international cheese standards. These relate to the correct statement of butterfat and moisture content; the classification, specifications and nomenclature for all fermented types of cheese; the manufacture and sale of raw milk cheese; and the use of "green" or uncured cheese, as well as of deteriorated cheese in the processing blends. Conditions in France and Holland in regard to such regulation are described.

783. MISNER, E. G. Dairy economics; the cost of milk production. *Holstein-Friesian World* 36: 616, 630. June 10, 1939. 43.8 H742

Costs and returns in New York State are shown, especially labor costs.

784. MISNER, E. G. Relation of size of cow to production and cost of production of milk on 94 grade A farms in the Tully-Homer area. N. Y. (Cornell) *Agr. Expt. B.* 719, 25 p. June 1939. 100 N48C

Total cost of production was 16 percent less for large cows than for small cows.

785. MOFFETT, W. K. Milk regulations in Pennsylvania. *Rural New Yorker* 98: 86, 119. Feb. 11, 25, 1939. 6 R88

In 1935 a new State milk sanitation bill was passed which tightened up the supervision over the fluid milk industry and placed ice cream and all products used in the manufacture of ice cream on the same health basis as required for fluid milk. The situation prior to the passage of this bill, especially with respect to the manufacture and use of ice cream, is reviewed, in contrast to the improvements which have since been effected.

786. MOONEY, G. L. Skim cheese—a menace to the dairy industry. *Natl. Butter and Cheese J.* 30(3): 56-57. Mar. 1939. 286.85 B98Bu

Cheese made from skimmed or partly skimmed milk provides unfair competition resulting from the fact that the retail price of "skim cheese" may be less than the price of Cheddar cheese with which it is identical in shape and appearance, but which complies with the established standards. The price attraction is sufficient to induce the consumer to purchase this product, although not properly marked or labeled. The author looks to the new Food, Drug and Cosmetic Act for correction of this practice.

787. NATIONAL FARM CHEMURGIC COUNCIL. Research committee. Chemurgic potentialities. Columbus? Ohio, 1939. 1 v. 281.12 N217

Contains section on the utilization of milk byproducts, including casein and lactose.

788. NEW JERSEY MILK CONTROL BOARD. Report, July 1, 1935-June 30, 1938. Trenton, 1939. 35 p. 280.3449 N46

This is the second report of the Board since the passage of the original act in 1933 and is continuous with the first. The two cover the entire five-year period. Such topics as controlling milk in interstate commerce, trends of milk production in the State, returns to producers, and production regulation are considered. The basic presentation is supplemented by tables.

789. NEW YORK (STATE) MILK COMMITTEE. Albany milk conference: a record of proceedings. Albany, 1939. 62 p. 281.3449 A11

Producers, consumers and state executives and legislators attended this conference. Contains brief addresses by dairy farmers from every section of the State, with an analysis of present dairy sentiment in their territories.

790. NICHOLLS, W. H. Post-war concentration in the cheese industry. *J. Polit. Econ.* 47: 823-845. Dec. 1939. 280.8 J82

Traces the shift in cheese from an unstandardized bulk product to one in a form adapted to extensive product differentiation and advertising. Considers the causes of certain postwar developments in the industry, the most important of which, were patents on the new "processed" cheese. Presents trends in the sale of the processed product and in the purchase of the bulk cheese. Estimates the quantitative importance of the various cheese-marketing channels, and analyzes the forces operating toward more direct marketing.

791. NICHOLLS, W. H. Post-war developments in the marketing of butter. *Iowa. Agr. Expt. Sta. Res. B.* 250: 321-384. June 1939. 100 Io9

Important trends in butter marketing during the post-war period were the rapidly increasing total volume of butter available, with production on farms forming an ever-smaller proportion of the whole; improvement of quality and consumers' preferences therefor; increasing amount of butter sold in package; tendency toward grading at point of production rather than on the terminal market; and the trend toward an increased number of large operators and more direct marketing channels. The movement toward more direct marketing raises the question of the relative economies of specialized independent agencies and integrated organizations.

792. NICHOLLS, W. H. Post-war developments in the marketing of cheese. *Iowa. Agr. Expt. Sta. Res. B.* 261, 148 p. June 1939. 100 Io9

The post-war increase in direct marketing of cheese was brought about by the development of organizations of size, financial strength, and standardization comparable with those in other industries. Post-war concentration was largely due to monopolistic elements, especially to patents. The concentration on processed cheese and on packaging was hastened and enhanced by these legal monopolies.

793. NICHOLLS, W. H. Short-circuiting the butter middleman. *Iowa Farm Econ.* 5(1): 13-14. Ames, Jan. 1939. 275.28 Io92

Finds that the postwar period has brought a marked increase in direct marketing of butter.

794. ONTARIO CREAM PATRONS' ASSOCIATION. A plan to improve the price of butter-fat in Canada. *Farmer's Advocate & Home Mag.* 74: 439, 461. July 27, 1939. 7 F22

Calls for the setting up of a central agency in each Province under provincial marketing legislation, and the collection of a toll of 1/2 c. per lb. (tentatively set) on every pound of butter produced within the Province. Effects of the plan would be to improve the income of the farmer, take care of surplus, and establish Canadian butter on the British market.

795. PARSONS, F. L., and others. Butter storage. I-II. *Natl. Butter and Cheese J.* 30(5): 16-18; (6): 50-52. May-June 1939. 286.85 B98Bu

Pt. I, by F. L. Parsons, W. H. Martin, and D. L. Martin; Pt. II, by F. L. Parsons, W. H. Martin, and D. Murray.

Only high quality butter should be stored. Shrinkage of storage butter is not of great importance as a risk factor. The quantity of butter in storage in the United States is greatest between August and October and lowest in April. The cost of storing butter for six months in a Chicago warehouse is approximately 1.58 c. per lb. Hedging costs increase the total costs to 1.86 c. per lb. for a six-months period.

796. PERRING, C. International chronicle of agriculture: United Kingdom. *Internatl. Inst. Agr. Monthly B. Agr. Econ. and Sociol.* 30: 475 E-486 E. Oct. 1939. 241 In82A

An account of the provisions of the Milk Industry Bill introduced at the end of 1938, and the objections which led to its withdrawal; and of the Milk Industry Act, No. 2, 1939. The milk marketing schemes do not include processed milk, but at the beginning of 1939 the Government proposed the establishment of a marketing scheme for processed milk.

797. PETERSEN, W. E. Dairy science, its principles and practice in production, management, and processing. Philadelphia, Lippincott, 1939. 679 p. Ref. (Lippincott's Agr. Sci. Ser.) 44 P444

Chapters on milk consumption, the economics of milk production, market milk, the butter industry, the cheese industry, the ice-cream industry, and the economic phases of milk by-products and concentrated milk products, contributed by H. C. Trelogan.

798. PHILLIPS, J. R. E. The operation of the milk marketing scheme in Wales, 1937-8. *Welsh J. Agr.* 15: 115-128. Jan. 1939. 10 W46

Subjects discussed include nominal contract prices and actual realized prices for liquid milk, manufacturing and sales prices, deductions from contract prices, producers-retailers' levies, pool prices, retail prices, and quality milks.

For similar reviews of the operation of the milk marketing scheme in Wales in earlier years see *Welsh J. Agr.* 12: 86-97, Jan. 1936 for 1934-35; 13: 94-107, Jan. 1937 for 1935-6; 14: 133-146, Jan. 1938 for 1936-7.

799. POLLARD, A. J., and CHAMPLIN, L. F. Receipts of milk and cream at the New York market. *Washington, U. S. Bur. of Agr. Econ.*, 1939. 12 p. 1.9 Ec724Rem

In cooperation with the N. Y. State College of Agriculture. This study supplements previous ones reporting rail and truck receipts of milk and cream at the New York market, covering the period from July 1937 to July 1938, inclusive, certain estimates being obtained for earlier periods. Receipts of milk and of cream and plain condensed milk at this market are tabulated for the period 1933-38.

800. POTTER, P. What consumers think about milk and the milk business. *Milk Plant Monthly* 28(4): 36-38. Apr. 1939. 44.8 C864

A study of consumer and storekeeper attitudes in regard to the use and sale of milk, conducted by the Business Research Corporation of Chicago on behalf of the Associated Milk Dealers of Chicago, was completed in March, 1938. Another survey was made about the same time by the Research Bureau of De Paul University under the direction of Prof. L. M. McDermott. Findings of the two surveys are summarized.

801. PRICE, W. T., and FLEMING, R. J. Accredited milk. *Gt. Brit. Min. Agr. J.* 46(5): 429-435. Aug. 1939. 10 G79J

The Accredited Milk Scheme, first introduced in Wiltshire on a county basis in 1929 as a "register" of accredited producers, has made considerable progress during the past ten years and done much to increase the hygienic quality of the milk supply of England and Wales. Describes the operation and effects of the system as it relates to the health of the cattle, producing processes, sanitation, and farm facilities. A large proportion of the herds in the country are still outside the scheme, although the financial inducement of a bonus for designated milk is offered.

802. QUINTUS, P. E., and ROBOTKA, F. Butterfat procurement by creameries in Butler County, Iowa. *Iowa Agr. Expt. Sta. B.* 265: 253-302. Dec. 1939. 100 Io9

Finds that the areas served by individual creameries are characterized by excessive overlapping, and that many of the creameries have too small a volume of business to operate most economically.

803. QUINTUS, P. E., and ROBOTKA, F. Cutting butter-fat marketing costs. *Iowa Farm Econ.* 5(3): 3-7. July 1939. 275.28 I092

A survey of Butler County, Iowa, showed that much of the inefficiency in obtaining cream by local creameries resulted from the prevailing system of paying truckers on a commission basis without designating the territory or the farmers they shall serve, confusing methods of making hauling charges against patrons, and lack of effective control over hauling practices. Recommendations for improvements are made.

804. QUINTUS, P. E. Wholesale butter prices and premiums. *J. Farm Econ.* 21: 595-605. Aug. 1939. 280.8 J822

The emergence of premiums appears to be the result of two closely interrelated peculiarities of the market: the nature of the receivers' business, and the manner in which the quotations are made. Growing out of the system of outright purchases, premium payments became, in effect, a competitive device developed by buyers in an effort to insure themselves particular marks of butter. The author traces this development to the stage when price stabilization purchases counteracted the system. The relationship between the settlement price and the type of bulk packages is included in the discussion.

805. REED, O. E. New developments in the uses of manufactured dairy products. Washington, U. S. Bur. Dairy Indus., 1939. 12 p. 1.973 A2R25

Increasing the consumption of manufactured dairy products and the utilization of byproducts, such as casein, whey and lactic acid, are dealt with. Better management of dairy herds for lower production costs is another subject considered.

806. REGIONAL conference on dairy problems; held at the Council of State Governments, Chicago, Illinois, October 6 and 7, 1939. 13 p. 44.9 R26

Recommendations regarding sanitary inspection standards and herd inspection.

807. REID, W. H. E., DREW, R. J., and ARBUCKLE, W. S. The effect of composition and serving temperature upon consumer acceptance and dispensing qualities of ice cream. *Mo. Agr. Expt. Sta. Res. B.* 303, 44 p. July 1939. 100 M693

A serving temperature of 10° F was considered most desirable from the consumer's viewpoint. Ice cream containing 14 percent fat, 13 percent serum solids, 14 percent sugar and 0.3 percent gelatin was preferred in the series of mixes studied. As the serving temperature was increased the vanilla flavor was more pronounced, the ice creams were sweeter, the high-fat ice creams were criticized less for being buttery and were considered to be more desirable. Considers also crystalline structure, stability, dipping and keeping qualities of ice cream.

808. RICE, E. B. Some observations on dairying in Britain. *Queensland Agr. J.* 51(5): 476-495. May 1939. 23 Q33

Discusses milk standards and the Milk Marketing Scheme. About 10 percent of Britain's milk production is converted into cheese.

809. RICE, J. L., and others. Administration and procedure in the enforcement of milk regulations; a symposium. N. Y. State Assoc. of Dairy and Milk Insp. Ann. Rpt. (1938) 12: 241-273. 1939. 44.9 N4833

G. W. Molyneaux, M. Dooling, J. E. Greenway, W. Rothery, D. R. Davidson, J. J. Regan, and C. S. Leete, joint authors. The status of milk control is treated from the standpoint of cities and localities of different size and facilities, and also from that of the agencies administering the programs.

810. RICHARDSON, C. S. High grade milk production and marketing in Tynedale. *Gt. Brit. Min. Agr. J.* 46: 547-552. Sept. 1939. 10 G79J

Describes conditions on an English farm, producing from both an "attested" and an untested herd. Indicates milk sales and farm management practices, with regard to maintaining and improving the quality of the product.

811. RINEAR, E. H. Milk distribution costs of producer-distributors and subdealers in New Jersey. *N. J. Agr. Expt. Sta. B.* 663, 56 p. Mar. 1939. 100 N46S

Shows the distribution costs involved in processing, bottling, and delivering milk, the relationships between volume of business, capital, and labor, and the conditions whereby one distributor has lower costs than another.

812. ROSS, H. E. Care and handling of milk. *New York, Orange Judd, 1939. Rev. ed., 417 p. 44 R73C* Ch. 8 and 9, Grades of milk; The transportation and distribution of milk.

813. SAFFORD, C. E. Milk & cream; determination of bacteria in milk purchased on basis of bacterial count with law and recommended procedure. N. Y. State Dept. Agr. & Markets. B. 323, 30 p. 1939. 2 N482

Sanitation regulation under the New York State Agriculture and Markets Law.

814. SANBORN, J. R., and BREED, R. S. Sanitation of paper milk containers. *Milk Dealer* 28(7): 36-37, 88-91. Apr. 1939. 44.8 M595

Sanitary problems that arise in connection with the making of containers. The sanitary condition of the finished container was found comparable to that of glass bottles used on well operated certified farms. It is concluded that the single service containers should be able to meet a standard of freedom from pathogenic organisms even more severe than those enforceable for present milk containers.

814A. SHAUL, K. A. A survey of the New York metropolitan grade A milk supply from the producers' standpoint. N. Y. State Assoc. of Dairy and Milk Insp., Ann. Rpt. (1938) 12: 157-172. 1939. 44.9 N4833

Report on a survey designed to compare the quality and varying conditions of production of grades A and B, pasteurized milk as distributed in the New York metropolitan area. Summarizes the significance of the findings and reports the conclusion of the investigators that milk produced on the average farm of grade A classification has had much better care in its production and handling and that the conditions under which it is produced are far superior to those for the grade B milk.

Discussion, p. 172-183

815. SHERMAN, R. W., and MCBRIDE, C. G. Ten years of farm sales of milk in four Ohio markets. *Ohio. Agr. Expt. Sta. B.* 609, 38 p. Dec. 1939. 100 Oh3S

The introduction and use of base and surplus plans have been the greatest change in marketing practices in the major markets of Ohio during the period 1925 to 1936.

816. SHOULD the term "surplus" be eliminated from marketing terminology and should fresh fluid milk be called "premium" milk? *Milk Plant Monthly* 28(7): 21-23. July 1939. 44.8 C864

An editorial pointing out that the terms "surplus" and "skimmed" are derogatory and advocating a change in milk market terminology. States that elimination of the term "surplus" and adoption of the term "premium" might "remove psychological difficulties as between the milk industry and the regulatory and legislative authorities and help to prepare a sober and dignified groundwork for milk control and for stable, rational marketing."

817. SMITH, L. T., and CLABORN, H. V. Utilization of lactic acid. U. S. Bur. Dairy Indus. *BDIM* 845, 4 p. 1939. 1.9 B14Bd

Also in *Indus. and Engin. Chem. News Ed.* 17: 370-371. June 10, 1939. 381 J825N

Use of lactic acid and its derivatives in the field of solvents, lacquers and plastics and as an acidulant for beverages and foods, are briefly discussed.

818. SMITH, R. G. C. Market for dry milk in the United States. *Canada Dept. Trade and Com. Com. Intel. J.* 61: 734-735. Oct. 21, 1939. 286.8 C16

Under heavy tariff protection, the market for dry milk in the United States has not offered any openings to imports for some time. Reviews the current situation regarding this market from the Canadian point of view, with a presentation of facts on domestic production, prices, and trade channels and methods.

819. SPENCER, L. Competition between fresh milk and canned milk. In Brown, E. F. Milk Papers 6(123): 61-80. June-Dec. 1939. 281.344 B81

Also in Internat. Assoc. Milk Dealers. Assoc. B. 32: 61-80. Dec. 5, 1939. 44.9 In8

Based on a study of milk prices, conducted jointly by the New York State College of Agriculture and the U. S. Bureau of Agricultural Economics.

Points out that evaporated milk has become cheaper and cheaper in comparison with the cost of fresh milk and states that the reduced buying power of consumers in recent years affords an ample explanation for the increased consumption of canned milk. Competitive position of fluid milk producers and dealers can be improved through efforts to reduce the costs of production and distribution of fresh milk.

("List of reports on surveys pertaining to the consumption of dairy products," p. 79-80.)

820. SPENCER, L., and BLANDFORD, C. The distribution of milk through health and welfare depots in New York City. N. Y. Agr. Col. A. E. 273, 17 p. May 1939. 281.9 D81

Coincident with a rise in the retail price of milk in New York, 53 city-supervised depots were opened for the sale of milk at 8 cents per quart to needy families. These depots at no time handled more than 3 percent of the total distribution, and the cheaper type of service can scarcely be said to have caused a significant increase in the city's total consumption of milk.

821. SPENCER, L. Public regulation of the milk industry: recent legislation aimed at raising farmers' incomes. State Govt. 12: 179-180, 187-190. Oct. 1939. 280.8 St2

Public regulation of the milk industry has only recently been undertaken by State and Federal units of government. This article analyzes the developments in milk control since New York pioneered with price-fixing legislation in 1933. Judicial interpretation of State and Federal powers in regard to the regulation of this intra- and inter-state problem is emphasized, pointing the way in long-term objectives to more adequate public control.

822. SPENCER, L. A. A revised series of milk prices for New York. N. Y. Agr. Col. Ext. Farm Econ. 111: 2707-2710. Feb. 1939. 280.8 C812

Includes material on average of net prices paid by Dairymen's League and Sheffield Farms for 3.7 percent grade B milk at the 201-210-mile zone, 1910-1938; seasonal variation in the farm price of milk in New York, 1912-1936; index numbers of the farm price of milk in New York, 1910-1938; and prices of milk and basic commodities, 1910-1938.

823. SPENCER, L. Subsidized distribution of milk and other products. Amer. Agr. 136(22): 10-11; (24): 13. Oct. 28, 1939, Nov. 25, 1939. 6 Am3

A discussion of plans for Boston, Chicago, and New York. Includes material on the stamp plan.

824. SPENCER, L. Ways of reducing costs of distributing milk in New York. J. Farm Econ. 21(1): 291-298. Feb. 1939. 280.8 J822

Deals with changes in price spread on grade B milk; items in spread on grade B retail milk; changes in costs; costs of distribution through stores; use of paper containers; and maladjustment of prices and wages. The necessary adjustments resulting from the adoption of new methods and equipment requiring less labor in distribution would be much less painful if commodity prices were to rise in the near future to 40 percent or more above pre-war. The Government can assist in promoting more efficient methods of distribution by providing adequately for research and education in this field, and by seeing to it that fair opportunity is given for the exploitation of new methods and devices.

825. STEVENSON, JORDAN & HARRISON. A study of milk distribution in New Haven [Conn.] with recommendations, June 26, 1939. New Haven? 1939. 77 p. 280.344 St4

Analyzes costs created by the milk dealer's plant and delivery procedures. Findings reveal that dairy plant costs are very small in comparison with the costs that are imposed on dealers by prevailing delivery and collection practices. For this reason, the delivery of milk was analyzed in more complete detail. What influence such factors as increases in store sales, fluctuations in community income, variations in birth rates, and changes in resale prices have on the consumption of fresh fluid milk is also considered. The trend of evaporated milk sales is investigated to determine the competitive dangers of this product.

826. STEWART, P. W., DEWHURST, J. F., and FIELD, L. Does distribution cost too much? A review of the costs involved in current marketing methods and a program for improvement. New York, Twentieth Century Fund, 1939. 403 p. 280.3 T91

Milk distribution problems and costs are discussed on p. 34-39.

827. STIEBELING, H. K., and PHIPARD, E. F. Diets of families of employed wage earners and clerical workers in cities. U. S. D. A. C. 507, 140 p. Jan. 1939. 1 Ag84Ci

Includes data on milk consumption in these families from December 1934-February 1937.

"Literature cited," p. 101-104.

828. STOLTZ, R. B., and ARMSTRONG, T. V. A comparison of the imperviousness of commonly used paper milk containers when in contact with contained liquids. Milk Plant Monthly 28(12): 54-58. Dec. 1939. 44.8 C864

Five experiments with five different makes of paper milk containers of one quart capacity.

829. STOLZ, R. B., and ROBERTS, H. E. Consumer preference for ice cream. Ohio State U. Col. Agr. and Domestic Sci. Dairy Technol. Conf. Mater. Presented 1939: 3-7. 44.9 Oh35M

Results in respect to color, sugar, serum solids, egg yolk and fat content and flavoring, of tests of consumer preference.

830. STRINGER, W. E. Profits from byproduct recovery depend upon products made. Food Indus. 11: 72-74, 262-263, 290. Feb., May 1939. 389.8 F737

The first installment shows that in the recovery of milk solids from whey, only part of the milk sugar should be recovered, the remainder being utilized in poultry feed. The second deals with the manufacture of lactose from crude milk sugar. Flow sheets for the manufacture of these products are included.

831. SUTERMEISTER, E., and BROWNE, F. L. Casein and its industrial applications. Ed. 2. New York, Reinhold, 1939. 433 p. Ref. 309 Su8

Partial contents: Storage of casein, by Albin H. Warth, p. 169-180; Statistics, p. 398-404 (includes production, imports, and consumption, 1916-37; production by States, 1920-37).

832. TANNER, F. W. The present status of the paper milk container. J. Milk Technol. 2: 4-15. Ref. Jan. 1939. 44.8 J824

Finds that pathogenic bacteria cannot survive the various procedures used in the manufacture of these containers, especially the paraffin treatment.

833. TAYLOR, C. C. Agricultural price-supporting measures in Ireland. Foreign Agr. 3: 347-370. Aug. 1939. 1.9 Ec7For

Deals with butter, cream, cheese, condensed milk, and milk powder.

834. THIS milk business. Hoard's Dairyman 84: 138, 167, 213, 251, 269. Mar. 10, Apr. 10-25, 1939. 44.8 H65

A series of three articles on marketing milk in Rockford, Ill., a city of 95,000 population. The first article deals with efficiency in milk distribution. The second covers cooperative marketing, and the third outlines and shows results of a public health plan for milk that has been in operation since 1929.

835. THOMSEN, L. C. New technique in butter judging. Amer. Prod. Rev. 87: 658, 660, 671. Apr. 12, 1939. 286.85 N482

Changes in scoring procedure under the revised Federal standards, effective April 1, 1939, are discussed. Criticisms of the new score card are: the variation in weight which is given to body, color and salt defects and the disregard of package as an item in scoring. Commenting on the advantages of committee scoring, the author says the system will have a general tendency to produce a common level for the scores.

836. THOMSON, G. S. Dairying; paying for fat in milk and cream. Sherborne, Dorset, England, Sawtells, 1939. 52 p. 280.344 T38

A résumé of milk-buying practices in 21 countries. Urges payment for milk on butter-fat content.

837. TINLEY, J. M. Reducing cost of distributing milk in California. J. Farm Econ. 21: 299-308. Feb. 1939. 280.8 J822

Reduction in cost of distributing fluid milk involves the problems of how to determine potential, immediate and long-time reductions in unit costs (or increased efficiency) and how to induce the milk-distribution industries in individual markets to adopt the necessary economies. The success of an industry program depends upon the development of a uniform detailed system of cost accounting and cost allocation, and upon the establishment of an adequately financed research agency whose main function would be to conduct continuing analyses, based on cost and investment data supplied by individual distributors, of ways and means of increasing efficiency and reducing unit costs of distribution.

838. TOMLINSON, F. R. World production and international trade in butter and cheese. Washington, U. S. Bur. Agr. Econ., 1939. 146 p. 1.9 Ec752Wp

In a statistical presentation, long-range production of butter and cheese in the 21 most important countries is shown. Data are also given on intercontinental and world trade in the same products.

839. TOTMAN, C. C., MCKAY, G. L., and LARSEN, C. Butter. Ed. 4. New York, Wiley, 1939. 472 p. 44 T642

Three phases of the butter industry are treated more fully than others: buying and grading of cream, churning (working of butter and composition control), and marketing.

840. TOVELL, G. W. Markets for creamery butter. Conf. Markets West, Farm Prod. Proc. 1938: 292-300. 1939. 280.39 C768

Includes discussion of butterfat price trends, and cost to Canadian Government under the Natural Products Marketing Act of exporting creamery butter in 1935.

841. TRACY, P. H., and TUCKEY, S. L. Accuracy of methods of sampling milk deliveries at milk plants. Ill. Agr. Expt. Sta. B. 459: 45-84. Nov. 1939. 100 IL6S

Report of a study begun in the fall of 1936 at the suggestion of the Champaign County Milk Producers Association, using milk delivered by members of the Association to each of four milk plants in Champaign and Urbana.

842. TRACY, P. H. Problems in the processing and marketing of homogenized milk. N. Y. State Assoc. Dairy and Milk Insp. Ann. Rpt. 1938(12): 69-84. 1939. 44.9 N4833

Quality control is more important in the marketing of homogenized milk than in the case of other types of dairy products. Discusses factors making for superior quality, processing techniques, and suggests a program to increase sales of this product.

843. ULREY, O. Kalamazoo milk market. Mich. Agr. Expt. Sta. Spec. B. 300, 44 p. Dec. 1939. 100 M58S

Includes material on milk prices and distribution costs.

844. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Boston drinks "surplus" milk. A new plan sponsored by the Department of Agriculture opens up the sluice gates to let more milk flow into the homes of needy families and to build up farmers' income from surplus milk. U. S. Agr. Adjust. Admin. Consumers' Guide 6(10): 3-4. Nov. 1, 1939. 1.94 Ad422C

Also in Brown, E. C. Milk Papers 6(119): 3-4. June-Dec. 1939. 281.344 B81

Facts concerning the operation of the plan effective Aug. 7, 1939. With the help of the Federal Surplus Commodities Corporation, milk regularly retailing for 12 or 13 c. a qt. was sold for 5 c. a qt. to families receiving relief, and for 7 c. a qt. to families with wage earners on WPA. Approximately 60,000 qts. were distributed on an average day.

845. U. S. AGRICULTURAL ADJUSTMENT ADMIN. The share of the domestic dairy market supplied by the American producer. Washington, 1939. 3 p. 1.94 Ad45Sdd

Dairy imports into the United States are made up primarily of special and fancy European cheeses supplying a luxury demand and a small amount of fresh milk and cream from Canada. Imports in 1938 amounted to only 0.5 percent of domestic production. A table and chart showing imports as a percent of production, calendar years 1924-38 are included.

846. U. S. AGRICULTURAL MARKETING SERV. Disposition and value of milk produced on farms 1937 and 1938. Washington? 1939. 5 p. 1.942 D22M59

Estimates of quantity of milk utilized in 1938 for butter, cheese, evaporated milk and other products, and for butter-making on farms.

847. U. S. BUR. OF AGRICULTURAL ECONOMICS. Agricultural price control in foreign countries—Germany. Foreign Agr. 3(2): 50-55. Feb. 1939. 1.9 Ec7F0r
Includes material on prices and price spreads for milk for fluid consumption, and for butter and cheese.

848. U. S. BUR. OF AGRICULTURAL ECONOMICS. Barriers to internal trade in farm products, by G. R. Taylor, E. L. Burtis, and F. V. Waugh. Washington, 1939. 104 p. 1 Ec7Ba

In the section on dairy products it is pointed out that dairy legislation of the past 10 or 15 years, while designed primarily to protect the health of consumers and to stabilize the dairy industry and to increase the purchasing power of dairy farmers, has caused serious interference with interstate and also intrastate commerce.

849. U. S. BUR. OF AGRICULTURAL ECONOMICS. The dairy outlook for 1939, by O. C. Stine. Washington, 1939. 7 p. 1.9 Ec752Do

Address before the Maryland-Virginia Milk Producers' Association, Feb. 6, 1939.

An increase in dairy production is anticipated due partly to the large number of milk cows and better herd management, and partly to the low price of feedstuffs. One of the problems will be how to increase consumption correspondingly.

850. U. S. BUR. OF AGRICULTURAL ECONOMICS. Dairy products: the World War and the 1939 European War. Washington, 1939. 7 p. 1.941 H2D14

Includes discussion of price trends of dairy products during World War I, and of important differences between 1914 and 1939.

851. U. S. BUR. OF AGRICULTURAL ECONOMICS. A survey of quality of selected brands of butter sold in one pound cartons at retail in New York and Chicago, by G. W. Sprague, G. G. Foelsch, and E. Small. Washington, 1939. 20 p. 1.9 Ec724Sq

Actual grades as determined by Government graders of butter purchased in retail stores were compared with the grade stated on the certificate of quality, if any, or with claims made on the carton. Brands carrying certificates of quality were found to be of higher average quality and more uniformly standardized than butter sold without these certificates.

852. U. S. BUR. OF DAIRY INDUSTRY and U. S. BUR. OF AGRICULTURAL ECONOMICS. Preliminary summary and analysis of records of 16 dairy farms in Louisiana. Washington, 1939. 21 p. (BDIM-864) 1,9 D14Bd

In cooperation with the Louisiana State University and Agricultural and Mechanical College.

Includes material on cost of production.

853. U. S. BUR. OF DAIRY INDUSTRY. Publications relating to the dairy industry. Washington, 1939. 10 p. 1,9 Am55Pu

Contains references on herd management, milk and cream, butter, cheese, ice cream, and on dairying in general.

854. U. S. CONGRESS. HOUSE. COMMITTEE ON THE DISTRICT OF COLUMBIA. Investigation of the milk and cream supply of the District of Columbia... Report pursuant to H. Res. 113. 76th Cong., 1st sess., H. Rpt. 1095, 8 p. 1939. 148 10300

Points out that in the main, the supply of milk of the District of Columbia comes from sources licensed by the Health Department, but that some imported and unlicensed cream finds its way into fluid consumption; also that the spread between what the producer receives and what the consumer pays is far too great. Remedial legislation to correct present unsatisfactory conditions is recommended.

855. U. S. CONGRESS. HOUSE. COMMITTEE ON THE DISTRICT OF COLUMBIA. Regulations governing the sale of milk and cream and ice cream in the District of Columbia. Hearings before the Subcommittee on Public Health, Hospitals, and Charities, 76th Cong., 1st sess. on H. R. 6316, May 23, 24, and 26, 1939. Washington, 1939. 150 p. 280.344 Un322

856. U. S. DELEGATION TO THE INTERNATIONAL DAIRY CONGRESS, 11, BERLIN, 1937. Report... of delegation of the United States to the Secretary of State. U. S. Dept. of State. P. 1277 (Conference ser. 38), 119 p. 1939. 44.9 In8211R

Summarizes the work of the Congress, gives a brief account of the participation by delegates from the United States, and includes reviews and abstracts of scientific papers presented by representatives of governments of various countries.

Sect. 3 covers legislation, sale of milk and milk products, and marketing.

857. U. S. EXTENSION SERVICE. The recently negotiated trade agreements with Canada and the United Kingdom, with particular reference to dairy and poultry and other agricultural products, by W. B. Silcox. Washington, 1939. 8 p. 1,913 E2R24

Status of cheddar cheese, cream, whole milk, skimmed milk, and dried buttermilk under the agreement with Canada, p. 2.

858. U. S. MARKETING LAWS SURVEY. Comparative charts of State statutes illustrating barriers to trade between States. Washington, 1939. 88 p. 173.2 W89Com

Selected Dairy Laws, p. 21-29, analyze legislation relating to licensing, inspection, price-fixing, and other restrictive features affecting the interstate market in dairy products.

859. U. S. PUBLIC HEALTH SERVICE. Frozen desserts ordinance. Washington, 1939. 18 p. 151.66 F93

Standards for the sanitary control of frozen desserts.

860. WASHBURN, R. M. Some points to consider in making consumer preference tests of ice cream flavor. Ice Cream Rev. 22(8): 40, 70. Mar. 1939. 389.8 Ic22

Factors considered include type of consumer, temperature of ice cream, and effect of food and drink previously consumed and of odors breathed.

861. WATSON, J. S. The status of milk marketing and stabilization in California. Calif. Dept. Agr. B. 28: 47-51. Jan. 1939. 2 C12M

The benefits derived from the enactment and operation of the California Milk Stabilization and Marketing Act are appraised. The background for the legislation and some of its important features are discussed.

862. WEAVER, E. Physiological factors affecting milk flavor, with a consideration of the validity of flavor scores. Okla. Agr. Expt. Sta. Tech. B. 6, 56 p. July 1939. 100 Ok4T

"From a thesis submitted by the author in partial fulfillment of the requirements for the degree of Doctor of Philosophy at the University of Minnesota, March, 1938." A total of 1,641 milk samples for flavor scoring was collected over a period of 140 weeks from 32 Jersey cows in the station herd. Flavor scoring was done by a panel of seven staff members.

863. WELLINGHOFF, E. F. Much of industry success depends upon co-operation of processors, distributors and machinery and supply houses. Milk Plant Monthly 28(3): 34, 36, 38. Mar. 1939. 44.8 C864

The author develops the thesis that just as changes have taken place in the dairy industry, in point of production, processing and distribution, as well as in the equipment required to handle dairy products, so must the industry and the dairy equipment houses cooperate and the activities of both be interrelated for mutual benefit.

864. WHEN you cut price how much more ice cream must you sell to justify your action? Ice Cream Rev. 22(8): 40. Apr. 1939. 389.8 Ic22

A table, prepared by the Eddy-Rucker-Nickels Co., merchandising analysts, of Cambridge, Mass., shows how much more dollar volume is necessary to justify price cuts of from 5 to 33 1/3 percent on regular profits on selling prices ranging from 15 to 50 percent.

865. WHITE, F. C. The marketing of dairy produce in England and Wales. Agr. Progress 16: 173-180. 1939. 10 Ag86

It was not until 1933 that dairy produce was brought within the scope of the National Mark Schemes, when a scheme was introduced for Cheshire cheese; since then, schemes have been introduced for nine other varieties of cheese, comprising all those of commercial significance, in addition to one for creamery butter. They provide for the use of a statutory grade designation, guaranteeing the quality and origin of the produce, and thus foster increased domestic demand. Explains how these schemes operate.

866. WHITE, R. G. Systems of dairy farming. Gt. Brit. Min. Agr. and Fisheries J. 46: 372-378. July, 1939. 10 G79J

The distribution of dairy farming in England and Wales in relation to milk markets or consuming centers, and also in relation to the suitability of soil, climate and other conditions for the economical production of milk; labor problems and the question of herd replacements as influencing the system of dairy farm management.

867. WHITNEY, C. "What price milk? New York, Caroline Whitney Memo. Fund, 1939. 79 p., illus. 281.344 W61

Manuscripts left by the organizer and chairman of the Milk Consumers Protective Committee of New York City, edited and brought up to date by G. Barsky, P. B. Norton, and G. Holland. Includes chapters on the farmer and his problems, farm organizations, distributors, milk control laws, and the Committee.

868. WHITTIER, E. O. Greater uses for dairy by-products. U. S. Bur. Agr. Econ. Agr. Situation 23(7): 14-16. July, 1939. 1 Ec7Ag

Also in Hoard's Dairyman 84: 499. Sept. 25, 1939. 44.8 H65

Gives amount of milk used in 1937 for manufacture of casein, condensed skim milk, skim milk powder, cultured milk, chocolate milk and skim milk cheese, and amount of whey converted to different products. Discusses uses for skim milk, milk powder, casein, milk sugar, whey, and lactoflavin.

869. WILLIAMS, H. T. High and low costs in milk production. *Farm Econ.* 3: 63-67. Oct. 1939. 281.8 F223

An analysis of costs of two groups of farms producing milk for the wholesale market, one at a low cost and the other at a high cost, selected from those farms which have taken part in the Milk Costs Investigation Scheme for England and Wales for the 3 years 1935/36-1937/38. The most striking difference between the two groups is in the price of cattle sold or transferred out, far higher in the low cost group. It is noteworthy, too, that family labor forms a higher proportion of the total labor in the low cost group (23 percent) than it does in the high cost group (14 percent).

870. WILLIAMS, W. E. Milk marketing scheme of the lower mainland of British Columbia. *Sci. Agr.* 20: 39-42. Sept. 1939. 7 Sc12

The scheme provides for the establishment of a marketing board. Milk is to be marketed by producers through an agency designated by the board. The agency in turn is to sell the milk to distributors and manufacturers at prices to be fixed by the board.

871. WILLIAMSON, P. Costs and returns from dairy cows on selected New York State farms. Based on cost-account records for the years, 1935, 1936 and 1937. *N. Y. Agr. Col. A. E.* 248, 8 p. Jan. 1939. 281.9 C81

A study based on records for 60 farms with 1,248 cows, 1935; 52 farms with 1,110 cows, 1936; and 53 farms with 1,153, 1937.

876. ABBOTT, J. S. The food value and economics of skim milk. *Amer. J. Pub. Health* 30: 237-239. Mar. 1940. 449.9 Am3J

Deprecates the waste of skim milk, in view of its nutritive value, and restrictions against its sale or use.

877. ABELE, C. A. Frozen desserts ordinance recommended by the United States Public Health Service. *Ice Cream Rev.* 23(8): 31-32, 89-90, 92. Mar. 1940. 389.8 Ic22

Paper presented at the Silver Anniversary Convention of the Southern Association of Ice Cream Manufacturers in Memphis, Tenn.

Includes grading the plant, specifications for grade A plant, and bacteria count requirements for milk and milk products used as ingredients of the mix and for the finished frozen dessert.

878. AGENJO CECILIA, C. Le contrôle hygiénique du "lait concentré sucré." *Lait* 20: 271-279. May 1940. Ref. 44.8 L143

Examines the causes of contaminated condensed milk in Spain and calls for stricter sanitary control.

879. ALLEN, R. H., HOLE, E., and MIGHELL, R. L. Supply responses in milk production in the Cabot-Marshfield area, Vermont. *U. S. D. A. Tech. B.* 709, 60 p. Apr. 1940. 1 Ag84Te

This study is based primarily upon farm-management data for the adjacent towns of Cabot and Marshfield in north-central Vermont. The data cover 1926 and 1936. Changes during the intervening period are described and future trends in production are estimated for three alternative price levels.

880. ALLRED, C. E., LUEBKE, B. H., and CRAWFORD, W. S. Shipments of dairy products into Knoxville, Tenn. *Tenn. Agr. Expt. Sta. Rur. Res. Ser. Monog.* 103, 20 p. Feb. 25, 1940. 173.2 W89Co

Of total purchases of dairy products by Knoxville wholesalers 57.5 percent are shipped in from other States. Wisconsin is the chief out-of-state source of dairy products. One of the principal reasons for buying elsewhere is underproduction in the area at certain seasons of the year. Quality and consumer demand are especially important in the case of cheese importations.

872. WINTER ice cream increased sales for Shaw of Danville, Ill. 59 to 83 percent during season ending March 31. *Ice Cream Rev.* 22(10): 34-35. May, 1939. 389.8 Ic22

Changing its formula to include an increased butterfat, sugar and total solids content made the ice cream taste warmer and resulted in increased sales.

373. WRIGHT, K. T., and BALTZER, A. C. Profitable dairy management. *Mich. Agr. Expt. Sta. Spec. B.* 297, 57 p. Apr. 1939. 100 M58S

A total of 499 records of dairy farms in Michigan was studied for the years 1932-36. The main points analyzed in this report are dairy costs and returns and factors affecting them.

874. WYLIE, C. E. Dairy industry development in Tennessee. *Natl. Butter & Cheese J.* 30: 16-18. Mar. 1939. 286.85 B98Bu

Production, quality and marketing of milk in Tennessee. Production statistics are included for various dairy products for the period 1925-37, with relation to the number of milk cows for the most part.

875. YALE, M. W. Believes New York State cheese industry has promising future. *Farm Res. [N. Y. State Sta.]* 5(2): 10, 11. Apr. 1, 1939. 100 N48A

Trends toward the production of new varieties of cheese in the State, and the need of new merchandising methods.

1940

881. AMERICAN ASSOCIATION OF MEDICAL MILK COMMISSIONS, INC. Methods and standards for the production of certified milk adopted... June 10, 1940. New York, 1940. 24 p. 44 Am38

Includes laboratory standards, buildings and equipment, care and handling of animals, milking, milk handling, transportation, and distribution.

882. ANDERSON, L. C. The Elwell plan. In Brown, E. F. *Milk Papers* 7(190): 1-4. Jan.-Feb. 1940. 281.344 B81

Address, annual meeting of the New England Milk Dealers' Association, Inc., Boston, Mass., Feb. 15, 1940.

Cites objections to the plan under which milk is sold to consumers at one price for the first unit, additional units being supplied at a lower price.

883. ANTIOXIDANT gains favor; pure oat flour concentrate added to cream or for parchment treatment aids in overcoming butter quality deterioration. *Amer. Butter Rev.* 2: 266-267. Aug. 1940. 44.8 Am37

Results of studies on "Avenex" at Pennsylvania State College and the University of Illinois.

884. *BACKMAN, J. Flexibility of cheese prices. *J. Polit. Econ.* 48: 579-582. Aug. 1940. 280.8 J82

885. BARR, W. L. A preliminary report of the cost of milk production on 53 dairy farms in four areas of Pennsylvania, 1939. *Pa. Agr. Expt. Sta. J. Ser. Papers* 987, 7p. Aug. 1940. 100 P381J

Report based on detailed records kept by 53 dairy farmers in northeast, southeast, central and western Pennsylvania in 1939.

886. BARTLETT, R. W. Increasing milk consumption by lowering distribution costs. *Ill. Farm Econ.* 66: 421-428. Nov. 1940. 275.28 IL5

Finds store distribution more economical than wagon distribution. Shows variations in distribution costs, and savings made possible by the use of paper containers.

887. BARTLETT, R. W. Increasing milk consumption by quantity discounts. *Milk Plant Monthly* 29(4): 40-41. Apr. 1940. 44.8 C864

Increases in store sales and in the sale of milk in gallon and half-gallon lots through stores and by wagon are discussed. The relation between quantity discounts and total milk sales is traced.

*Not examined

888. BARTLETT, R. W. Maintaining stability in the market-milk industry through the use of flexible prices. *Ill. Farm Econ.* 62: 369-376. July 1940. 275.28 IL5

Deals with the importance of butter prices in arriving at market-milk prices; price flexibility versus rigidity in the Chicago and St. Louis milk areas; actual and code prices for condenser milk; determination of Chicago milk prices under a flexible price plan; and effects of the Federal order upon consumer prices and milk consumption. Emphasis is placed upon butter prices in arriving at the price of market milk because butter prices constitute the best index available for measuring changes in supply and demand conditions in the dairy industry. About three-fourths of all the milk manufactured is used for butter.

889. BARTLETT, R. W. Prospects for exports of dairy products. *Ill. Farm Econ.* 56: 301-303. Urbana, Jan. 1940. 275.28 IL5

Shows United States exports for these products for 1914-19 and 1937-38 and finds that with our present production capacity a small volume of concentrated milk and dairy products could be exported without materially affecting prices.

890. BELL, E. W. Adapting pooling plans to milk markets. A comparison of dealer pool and market-wide pool operations. *Mass. U. Agr. Ext. Farm Econ. Facts*, 13(1): 2-3. Jan. 1940. 275.29 M381F4

Milk markets in Massachusetts under public control have had experience with both types of pool. Although it may be too soon to draw conclusions from this experience, the greater possibility of obtaining permanent market stability with the market-wide pool is apparent.

891. BERCAW, L. O. The dairy industry in the United States; selected references on the economic aspects of the industry. *U. S. Bur. Agr. Econ. Libr. List* 11, 59 p. Washington, 1940. 1.9 Ec73E

A classified list of 323 references to publications issued during the period January 1939 through June 1940.

892. BERCAW, L. O. State trade barriers; selected references. *U. S. Bur. Agr. Econ. Econ. Libr. List* 1, rev., 59 p. 1940. 1.9 Ec73E

References to dairy products, including milk, are listed in the index to 'his bibliography.

893. BERGFELD, A. J. Changing methods of distribution: New Haven, Connecticut, study. In *Northeastern Dairy Conference*, Providence, Rhode Island, March 7-8, 1940. *Stenographic proceedings*. p. 87-91. New York, Consolidated Rptg. Co., 1940. 44.9 N818

A study made in 1939 whose purpose was to determine the cost of milk distribution, and to investigate every possible method for reducing costs.

894. BISHOP, G. R. An analysis of dealers' sales of milk and cream in the Buffalo market on December 9, 1937. In *Brown, E. F. Milk Papers* 7(173): 1-18. Jan.-Feb. 1940. 281.344 B81

Issued as *N. Y. Agr. Col. Dept. Econ. and Farm Mangt.* A. E. 253, 18 p. Feb. 1939. 281.9 C81

Material based on reports obtained from all dealers licensed to sell milk in the Buffalo area. Includes data on sales of milk, cream, and other products, types and size of containers, number of customers and routes, and per capita consumption.

895. BLACK, J. D., and others. Is production control of milk desirable? If so, how can it be accomplished? In *Northeastern Dairy Conference. Stenographic Proc...* Providence, R. I., Mar. 7-8, 1940, p. 42-67. New York, Consolidated Rptg. Co., 1940? 44.9 N818

K. Geyer, R. J. Cooper, and W. H. Bronson, joint authors. Discusses the subject mainly in relation to a program involving also such considerations as consumption adjustment, production and distribution costs, and market regulation.

896. BLANCH, G. T., and BROADBENT, D. A. Preliminary report of study of dairy farms which marketed dairy products in Ogden, Utah-1939. *Utah Agr. Expt. Sta. Mimeograph Sheet* 240, 20 p. Oct. 1940. 100 U11Mi

Includes material on average itemized expenses for milking herds in different areas near Ogden in 1939, and average total expenses for 1937-1939, inclusive.

897. BLANFORD, C. J. An analysis of dealers' sales of milk and cream in the New York market, 1933-1938. *N. Y. (Cornell) Agr. Expt. Sta. B.* 735, 24 p. June 1940. 100 N48C

Gives information on grades of milk and types of packages, milk and cream receipts, trends in sales of grades A and B milk and heavy cream, and variations in sales.

898. BOTTLENECK busters. *U. S. Agr. Adjustment Admin. Consumers' Guide* 7: 14-15. Dec. 2, 1940. 1.94 Ad422C

Results of a questionnaire survey covering more than 250 American cities. Deals in part with milk distribution from point of view of quantity discounts.

899. BRESSLER, R. G., Jr. Transportation and country assembly of milk. *J. Farm Econ.* 22: 220-224. Feb. 1940. 280.8 J822

Three phases of country assembly of milk are considered: farm collection and transportation to country plants, country plant operation, and plant to market transportation. The object of the analysis is to determine the most economical combination of these three elements, or to discover the optimum size of plant, of plant production area, and of transportation.

900. BROCK, F. D. Necessity for and some difficulties of public health milk control. *J. Milk Technol.* 3: 36-40. Jan./Feb. 1940. 44.8 J824

Problems affecting milk quality and milk sanitation control are discussed. The program elaborated in Texas, which incorporates the U. S. Public Health Service Milk Ordinance and Code in its state law, is described as an example of what is being done in this field.

901. BROWN, E. F. Let 'em eat Fortune. Easier to swallow than "facts", offered in *Fortune* article, "Let 'em drink Grade A." In his *Milk Papers* 7(186): 1-11. Jan.-Feb. 1940. 281.344 B81

Reply to the "misconceptions and erroneous conclusions reached by *Fortune*" in an article which appeared in the November 1939 issue.

Explains that the high cost of milk is not due to profiteering on the part of milk companies, but to labor costs, low consumption and the cost of the milk itself.

902. BROWN, E. F. *Milk papers*, v. 2-8, 1936-1940. 7 v. New York, Milk research council, inc., 1939-40. 281.344 B81

Consists of various documents and reports, bound together, and intended to present all significant material on milk. The material is arranged by subject, including investigations, consumer relations, labor relations, and milk control.

Certain publications from this compilation are listed separately in this bibliography under author or issuing agency.

903. BROWN, E. F. Psychological studies of consumers of dairy products...what the consumer believes. In *Wis. Univ. Dept. of Dairy Indus. Papers presented at Dairy Mfrs. Conf.* Mar. 12-14, 1940, p. 80-85. 44.9 W757

Deals with milk buying habits of New York consumers, their reasons for particular brand selection, reactions to suggested innovations, and familiarity with practices in the milk industry.

904. BROWN, E. F. Some "grade A" milk facts. *New York, Milk Res. Council*, 1940. 15 p. 280.344 B81

Refutes the advisability of a proposed single-grade system in New York in view of expected cost, price, and quality changes.

905. BROWN, E. F. Toward stabilizing the milk industry. *Chamber Com. State N. Y. Mo. Bul.* 31: 403-411. Mar. 1940. *Libr. Cong.*

Fair milk prices and profits are the keynote of the author's thesis. He shows that there are many factors at play in this connection, which are not generally recognized. He lays down several principles which should motivate intelligent effort to improve the situation.

906. BROWN, E. F. What do we know about consumption of milk by consumers. In Wis. U. Dept. of Dairy Indus. Papers presented at Dairy Mfrs. Conf. Mar. 12-14, 1940, p. 74-79. 44.9 W757

Considers consumer "likes and dislikes" in regard to milk and suggests a public relations policy to increase consumption.

907. BUCK, R. K., HOPKINS, J. A., and MALONE, C. C. An economic study of the dairy enterprise in northeastern Iowa. Iowa Agr. Expt. Sta. Res. B. 278: 853-875. Sept. 1940. 100 109

Considers the principal influences affecting the profit from dairying in northeastern Iowa, the amount of dairy income per cow which may be expected, and the capital investments, cash expenditures, feed and other costs that are involved in securing this income.

908. BURTIS, E. L. Barriers and the milk industry. In Brown, E. F., comp. Milk Papers 9(279), 13 p. Oct. 1940-Sept. 1941. 281.344 B81

Reprint from Ind. Law J. 16: 191-203. Dec. 1940. Discusses public health measures and economic stabilization measures as trade barriers. Suggests that amelioration would result if sanitary requirements were made reasonably uniform from State to State and if all grounds for suspicion of the reliability of inspections could be removed.

909. BURTIS, E. L., and WAUGH, F. V. Barriers to internal trade in farm products. U. S. D. A. Ybk. 1940: 656-666. 1 Ag84Y

Deals in part with milk.

910. CAMENGA, C. C. The production of quality milk in the New York milk shed as affected by state and federal marketing control. N. Y. State Assoc. Dairy and Milk Insp. Ann. Rpt. (1939) 13: 167-172. 1940. 44.9 N4833

Discusses marketing control of milk through legislative action, with reference to the situation in New York. The price stabilization and favorable returns to the producer made possible by this regulation are cited as proof of its usefulness.

911. CANADA. DEPT. OF AGRICULTURE. DAIRY PRODUCTS DIVISION. The correct branding for cheese and for cheese boxes. Canada Dept. Agr. C. 170, 3 p. 1940. 7 C16C

Designs and methods of marking cheese and cheese boxes, as provided by regulations under the Dairy Industry Act, are explained and illustrated.

912. CASALINI, M. L'agricoltura e le industrie legate all'agricoltura. Rome, Edizioni Sormani, 1940. 416 p. 281.176 C26

Contains section, "L'industria casearia," p. 295-302, which discusses the development of the industry in Italy, and the extent of production and trade in butter, cheese, casein, condensed milk, and milk powder.

913. COWAN, H. B. A municipally owned and operated milk plant. Wellington, New Zealand, has demonstrated the possibilities of such a system - which has paid for itself. In Brown, E. F. Milk Papers 7(199): 47-48. Jan.-Feb. 1940. 281.344 B81

Reprinted from Amer. City, 55(1): 47-48. Jan. 1940. 98.58 Am31

The system has been a success financially and has effected a vast improvement in the quality of the city's milk supply. Under the system, milk with a butterfat content of almost 4.5 percent, is delivered to consumers at a price of about 8 c. a qt.

914. CROWE, L. K., and DOWNS, P. A. A comparative evaluation of an ice cream supply as it reaches the consumer. J. Dairy Sci. 23: 615-620. July 1940. 44.8 J822

No reason was found for differences in price of a number of pint samples of vanilla ice cream when compared on the basis of the following: net weight of ice cream obtained; calculated overrun in percent; composition including butterfat, total solids, protein and calculated carbohydrate; bacteria count of either total or colon type organisms; calorific value, or quality as determined by organoleptic examination.

915. CUNNINGHAM, L. C. Dairy-farm management. N. Y. Agr. Col. Ext. B. 450, 36 p. Dec. 1940. 275.29 N48E

Based on 3700 survey records of New York farms producing grade B milk, obtained during 1926-38. Shows labor income, size of business, labor efficiency, capital efficiency, rate of milk production, crop yields, combination of enterprises, and the effects of these factors in different combinations.

916. DARLINGTON, J. B. A cost of production plan. Rural New Yorker 99: 278, 281. Apr. 20, 1940. 6 R88

Advocates revision of the Pennsylvania Milk Control Board's price orders to cover adequately the cost of milk production, regardless of the use to which it is put.

917. DAVIS, W. P. Financing the surplus removal of dairy products. In Northeastern Dairy Conference. Stenographic Proceedings... Providence, R. I., Mar. 7-8, 1940, p. 74-76. N. Y., Consolidated Rptg. Co. 1940? 44.9 N818

Directs attention to a Treasury appropriation for this purpose.

918. DELOACH, D. B., and WEST, W. A. Some economic implications of milk control in Oregon. Oreg. Agr. Expt. Sta. B. 375, 16 p. Aug. 1940. 100 Or3

County surveys of the administration of the Oregon Milk Control Act, effective Jan. 1934, showed weaknesses to be the attempted maintenance of a uniform price under conditions of widely varying quality standards and widely varying costs with respect to the State as a whole.

919. DOW, G. F. Receipts, utilization, and prices of milk and cream in Maine milk control areas. Maine. Agr. Expt. Sta. B. 399: 71-183. Ref. 1940. 100 M28S

Shows developments in milk price regulation and analyzes milk distributors' records from May 1935 to December 1937. Describes the Maine milk market control areas, indicates trends in utilization and seasonal variation in receipts and utilization. Discusses prices paid producers, distributor's spread, and effect of price changes on consumption.

920. DOWN go utilization costs. Milk Dealer 30(3): 41. Dec. 1940. 44.8 M595

Users of a coordinated rail-highway milk transportation system report appreciable savings and improved sanitary conditions through the elimination of the pumping operation at railheads. Increased volume per man is moved in less time.

921. DOWNS, F. H., Jr. The voluntary grading of milk supplies in Alabama. Jour. Milk Tech. 3: 97-100. Mar.-Apr. 1940. 44.8 J824

Finds that the level of safety in the milk supply achieved under this program has been higher than was the case with a mandatory grading policy, inadequately enforced.

922. DURAND, L., Jr. Dairy region of southeastern Wisconsin and northeastern Illinois. Econ. Geog. 16: 416-428. Oct. 1940. 278.8 Ec7

Tells of the settlement and development of the region, describes the various city markets and milksheds, shows the location of condenseries, and discusses prices and the surplus problem.

923. EDEL, H. Cutting production costs through planned work schedules. Milk Dealer 29(9): 32-33, 59. June 1940. 44.8 M595

Personnel management at Gehl's Guernsey Farms, Milwaukee, Wis., involving use of a "working and relief schedule" on which every employee's starting and finishing time each day is recorded, together with his various duties and his day off.

924. EFFERSON, J. N., and MERRICK, F. An economic study of dairy farms in the Kentwood area of southeastern Louisiana, 1937-1938. La. Agr. Expt. Sta. B. 325, 28 p. June 1940. 100 L93

Discusses farm organization, costs and returns of milk production and factors affecting them, including number of cows per farm, production per cow, milk prices, and proportion of receipts from dairying.

925. EFFERSON, J. N., and MERRICK, F. Factors affecting costs of milk production in southeastern Louisiana. *La. Agr. Expt. Sta. B. 321*, 8 p. June 1940. 100 L93

Factors associated with low costs and high returns among 68 farms for the crop year 1937-38 were: (1) considerable home-produced feed and roughage and home-mixing of purchased feeds, (2) relatively large number of dairy cows (more than 20 cows), (3) relatively high production per cow (more than 4,000 pounds), (4) relatively high butterfat test (more than 4 percent), and (5) most of cows freshening in the fall.

926. EVANS, R. M. The AAA farm program and the northeast dairyman. Washington, U. S. Agr. Adjust. Admin. 1940. 8 p. 1.42 Ad4Ev

Shows that the Vermont dairyman has been benefited by its operation, and that his welfare is dependent on farming conditions in other parts of the country.

927. FARON, S. Use and future of two-quart and gallon milk bottles. *Milk Dealer* 29(7): 96, 98, 100, 102-104. Apr. 1940. 44.8 M595

Multiple quart bottles increase sales and consumption by the offer of a price inducement justified by reductions in plant and distribution costs. This method of distribution is found feasible for small as well as large dairies.

928. FOREST, H. L. Increasing the consumption of dairy products by low-income distribution. Washington, U. S. Surplus Mktg. Admin., Dec. 1940. 10 p. 1.944 D2F761

Presented to the American Farm Bureau Federation, Baltimore, Md., Dec. 9, 1940.

Describes the efforts made to expand the outlets and to increase the consumption of dairy products among needy families in Boston, Chicago, New Orleans, and Washington, D. C., and to improve the marketing conditions for such products as a means of improving returns to dairy

farmers. Activities of the Surplus Marketing Administration, the Federal Surplus Commodities Corporation, and Dairy Products Marketing Association are discussed.

929. GAUMNITZ, E. W. New trends in milk distribution. U. S. Bur. Agr. Econ. Agr. Situation 24(11): 18-21. Nov. 1940. 1 Ec7Ag

Reports a definite tendency for milk dealers to experiment with new delivery methods, new types of containers, and new pricing plans, pointing toward reduction in consumer prices.

930. G. T. BRIT. MINISTRY OF FOOD. Report of the committee appointed ... to examine the cost of milk distribution, 1940. London, H. M. Stationery Off., 1940. 38 p. 280.344 G7982

Suggestions for reducing costs of distribution include abolition of the half-pint bottle, deposits on bottles, exclusion from the milk round of the sale of other goods, and restriction of milk deliveries in any one district to two organizations.

931. GRIGSBY, R. M. Federal regulation in the New Orleans milk market. *La. Agr. Col. Ext. La. Rural Econ.* 2(2): 8-10. Apr. 1940. 281.8 L93

Considers the Agricultural Marketing Agreement Act of 1937, marketing problems in the New Orleans milkshed, and the application of Federal and State marketing orders.

932. HADARY, G. The use of flavored milk drinks in the dairy industry. In *Ill. U. Dept. of Dairy Husb. Mater. presented at the Dairy Mfr. Shortcourse.* 1940: 133-138. Ref. 44.9 IL63M

Reviews literature on fruit-flavored milk drinks and states that today, chocolate-flavored milk is regarded as a standard dairy product. State standards for chocolate-flavored milk drinks are discussed and compared. Promotion by the industry of flavored milk as a means of increasing consumption is suggested.

933. HAMMERBERG, D. O. Allocation of milk supplies among contiguous markets. *J. Farm Econ.* 22: 215-219. Feb. 1940. 280.8 J822

A study of the supply problems of 14 markets in Connecticut, whose supply areas overlap to a considerable extent, shows that significant economies can be effected through re-allocation of supplies among adjacent markets. Consolidation of supply areas through re-allocation would facilitate re-organization of transportation routes through which appreciable reductions in transportation costs might be possible. Suggests that a study of these inter-market relationships would furnish criteria of inestimable value in connection with the problem of formulating fluid milk price policies.

934. HANNAY, A. M., comp. Price fixing by government in foreign countries, 1926-1939; a selected list of references on direct price fixing of agricultural products by foreign governments. U. S. Bur. Agr. Econ. Bibliog. 86, 631 p. 1940. 1.9 Ec73A

Includes references to butter, casein, cheese, cream, milk and dairy products.

935. HARE, H. R. Dairy farm business in Ontario. Economic survey of farms producing milk for fluid consumption. Ottawa, Canad. Dept. Agr. Mktg. Serv. Econ. Div., 1940. 65 p. 281.344 C1632

A preliminary report based on the books of 490 farmers in eight market zones in Ontario. Includes information on costs of production and price received per hundredweight in the various zones. Conclusions are drawn on factors affecting profitable operation.

936. HOFFMAN, A. C. Large-scale organization in the food industries. U. S. Temporary Natl. Econ. Com. Monog. 35, 174 p. Ref. 1940. 280.12 Un3986M

In Ch. 4, Large-scale Organization in the Dairy Industry, information is given on sales, proportion of products handled, extent of activities of leading dairy companies and producer cooperatives. The economic significance of the growth of large-scale food corporations, is evaluated.

937. HOLFORD, F. D. The importance of milk trucking in maintaining sanitary quality. N. Y. State Assoc. Dairy and Milk Insp. Ann. Rpt. (1939) 13: 105-112. 1940. 44.9 N4833

Discusses use of hired trucks for transporting milk from the farms to the receiving plant and returning the clean empty cans to the farmers. Suggestions are made for maintaining sanitary conditions while the milk is in transit. The covered insulated truck is considered the ideal vehicle for hauling milk.

Discussion, p. 112-118.

938. HOLMAN, C. W. Proposed Federal legislation affecting dairymen. In *Northeastern Dairy Conference. Stenographic Proceedings...* Providence, R. I., Mar. 7-8, 1940. p. 68-74. N. Y., The Consolidated Rptg. Co. 1940? 44.9 N818

Contains information on the status of the Marketing Agreement Amendment Act and conditions under the Trade Agreement Act of 1934.

939. HOLMAN, H. P., and others. Farm products and by products for industrial use. U. S. Bur. Agr. Chem & Engin. ACE-55, 69 p. May 1940. 1.932 A2Ag8

V. A. Pease, T. D. Jarrell, C. E. Senseman, and A. B. Genung, joint authors.

Contains section on dairy products (p. 60-62) showing the various purposes for which milk is utilized, together with amounts of the various products manufactured.

940. HOPPER, W. C., and CASSELMAN, P. H. Consumption of dairy products in rural Canadian homes. Ottawa, Mktg. Serv., Econ. Div. Dominion Dept. of Agr., Sept. 1940. 45 p. 281.344 H77

Based on a questionnaire distributed to women of farm and other rural households in 1937. Includes information on per capita consumption of whole and skim milk, butter-milk, cream, cheese, and butter, and prices paid for those products. All Provinces were covered by the survey, but inadequate data were received from Alberta and British Columbia.

941. HOTON, L. La réglementation du lait malpropre. Lait 20: 287-291. May 1940. 44.8 L143

Reviews milk sanitary regulations in effect in Europe and holds that a strict legal definition of what is clean milk should be avoided, since the possibility of contaminated milk is not necessarily excluded by the usual norms.

942. HOWE, F. C. Final report on the milk and dairy industry directed to the Temporary National Economic Committee. Washington, U. S. D. A., 1940. 47 p. 1.90 A1F49

Testimony on the milk industry before the Committee brought to light various abuses. These are discussed and remedial suggestions, in addition to anti-trust proceedings, are offered. Suggestions include establishing a Federal milk authority having large administrative power over the entire industry, with authority to fix prices to producers; adopting a milk control code by the District of Columbia which would serve as a model; and drafting a milk code by the U. S. Public Health Service in Cooperation with the U. S. Department of Agriculture to correct many abuses which have been written into the codes of many towns and cities. These abuses are responsible for the birth of the milk monopoly, as the necessity for the purification of fluid milk has divested the farmer of an open market for his product which must now be sold to two major and four minor processing corporations.

943. HUEBNER, E. A review of the State's dairy laws and regulations. Wis. U. Dept. Dairy Indus. Dairy Manfrs. Conf. Papers 1940: 59-68. 44.9 W757

Relates to the sanitary control of milk and cream, cheese, butter, condensery products, and ice cream in Wisconsin.

944. HUFFMAN, G. L. Paper bottles: economics, of their use and consumer reaction. Wis. U. Dept. Dairy Indus. Dairy Manfrs. Conf. Papers 1940: 122-126. 44.9 W757

Cites advantages of the paper container for the distributor and consumer.

945. HUGHES, E. M. The business of milk retailing by producer-distributors in New York State. N. Y. (Cornell) Agr. Expt. Sta. B. 741, 85 p. Nov. 1940. 100 N48C

Abridged report in N. Y. Agr. Col. Farm Econ. 105: 2558-2561. Feb. 1938. 280.8 C812

Ascertaines the amount and variation of costs and profits in milk distribution and measures the effects of volume of business, labor, route and capital efficiency, and type of business on costs and profits.

946. HUGHES, E. M. Milk retailing by producer-distributors in New York State. In Brown, E. F. Milk Papers 7 (172): 1-18. Jan.-Feb. 1940. 281.344 B81
Issued as N. Y. Agr. Col. Dept. Agr. Econ. and Farm Mangt. A. E. 239, 18 p. Feb. 1939. 281.9 C81

This study, made from detailed records of 92 producer-distributors located in upstate New York and on Long Island, shows capital invested, costs of distribution and sales outlets, and discusses factors affecting costs and profits.

947. HUNZIKER, O. F. The butter industry, prepared for factory, school and laboratory. Ed. 3, LaGrange, Ill., 1940. 780 p. 44 H92B

Partial contents: Ch. 6, Care of milk and cream on farm and in transit; Ch. 8, Systems of cream buying - relative merits; Ch. 9, Receiving - grading, sampling, weighing, can washing; Ch. 17, Packing - wrappers, containers, machines; Ch. 18, Creamery overrun, utilization of by-products (skim milk, skim milk powder, casein, butter-milk); Ch. 19, Markets, imports, exports, consumption; Ch. 20, Cold storage - volume, cost, effect on butter; Ch. 24, Butter scoring, butter standards, standardizing of milk and cream.

948. IRWIN, H. S. Impressions of trading in butter and egg futures. U. S. Commod. Exch. Admin. CEA-21, 28 p. 1940. 1.9 C73C

Tables give volume of futures trading, 1927-38, and maximum aggregates of open contracts, 1928-38. Charts show average weekly spreads between cash and futures prices of butter in Chicago, 1932-37, and the relation between storage holdings and open futures contracts in Chicago on the first day of May-April 1931-38. Effects of futures trading on butter prices are considered.

949. IRWIN, H. S. Survey of butter futures as of August 31, 1939. U. S. Commod. Exch. Admin. CEA-22, 36 p. 1940. 1.9 C73C

Most of the traders in butter futures were engaged in the butter, egg, and poultry business. "Short selling" was almost negligible. Hedging was highly concentrated at Chicago, where almost three-fifths of the storage butter was hedged, compared with less than one-twentieth of the butter stored elsewhere. In contrast to the concentration among the hedgers, speculative long positions were widely scattered throughout the country, and most of them were small; concerns accounted for 60 percent of the long positions and for 99 percent of the short positions. Most longs showed paper losses and most shorts paper profits, but this situation was reversed quickly by the rise in prices occasioned by the outbreak of war.

950. IRWIN, R. E. Has the approved inspector system promoted uniformity? N. Y. State Assoc. Dairy and Milk Insp. Ann. Rpt. (1939) 13: 173-176. 1940. 44.9 N4833

Requirements for farm inspection by approved inspectors is set forth in an act passed in 1935 in Pennsylvania. The system is described and appraised.

Discussion, p. 176-178.

951. JACKSON, R. C. Trend in milk consumption in the Boston market. Milk Dealer 29(12): 92-93. Sept. 1940. 44.8 M595

Data on consumer opinion regarding milk profits, wagon and store sales, and milk-drinking habits and preferences of adults and children is presented.

952. JENSEN, E. Determining input-output relationships in milk production. J. Farm Econ. 22: 249-258. Feb. 1940. 280.8 J822

Results of experiments with cows to determine how far milk production can be influenced by increased feeding. Indications are given as to use of these data.

953. JENSEN, J. M. A study of cream quality from creameries located in southern Michigan. Mich. Agr. Expt. Sta. Q. B. 22: 203-208. Feb. 1940. 100 M58S

A wide spread exists in the quality of cream purchased for buttermaking. Cream cannot be graded entirely by acid test, on the basis of percentages in relation to score. The atmospheric temperature during the days the cream was accumulated and shipped to the creamery influenced the quality appreciably. On the whole, the cream which was held three days was of better quality than that held four days. The flavor criticisms of cream scoring less than 90 were due to such factors as improper cream storage and water contamination.

954. JOHNSTON, C. I. Distribution of surplus butter. Econ. Annal. 10(4): 61-64. Aug. 1940. 281.8 Ec72

About May 15, 1939, vouchers for 3,081,697 lbs. of butter were distributed to Canadian families on relief and to families with very low incomes as a means of reducing surplus stocks of butter in storage in Canada. The Dominion Parliament voted funds for the redemption of vouchers exchanged for butter at grocery stores, where the price of the butter was marked on the vouchers by the grocers. Grocers, upon presenting these vouchers to the banks, received the value of the butter as shown thereon. The Dominion government reimbursed the banks for the amounts paid to grocers, plus a commission. Statistics are given on the increase in consumption of butter as the result of this free distribution.

955. JOHNSTON, C. I., and HOPPER, W. C. An economic study of the consumption of milk and cream in Vancouver. (Pub. 678) Dept. Agr. Tech. B. 25, 41 p. Feb. 1940. 7 C16T

Besides measuring the extent of consumption of milk and cream in Vancouver, this study purports to assess the effect that various conditions - such as income, number of young children in the family, type of occupation, racial origin, and the section of the city in which consumers lived - have upon the consumption. Fresh fluid milk is the form of milk considered, but one section of the bulletin deals with the consumption of milk as a beverage. Includes a few tables relating to the consumption of evaporated and condensed milk.

956. KENNEDY, M. Elwell plan meets with both success and setbacks. *Milk Plant Monthly* 29(4): 38, 40. Apr. 1940. 44.8 C864

Discusses the functioning of the Elwell plan of quantity discounts in milk distribution, with particular reference to Minneapolis and Cedar Rapids.

957. KNIGHT, H. W. Intermunicipal co-operation in milk inspection. *Pub. Managt.* 22: 103-106. Apr. 1940. *Libr. Cong.*

Also in *Ill. Municipal Rev.* 19: 109-110. June, 1940.

The cooperative plan of six adjacent Illinois municipalities in complete compliance with U. S. Public Health Service standards is described. Methods of operation and the cost of the service are discussed.

958. KOENIG, N. Six years of marketing agreements. III. Dairy products. *U. S. Bur. Agr. Econ. Agr. Situation*, 24(3): 21-23. Mar. 1940. 1 Ec7Ag

A discussion of the nature and scope of, and problems arising under, marketing agreement programs. Includes material on price structure.

959. KOLLER, E. F., and JESNESS, O. B. Trends in the Minnesota dairy industry. *Minn. Agr. Expt. Sta. B.* 346, 40 p. Jan. 1940. 100 M66

Relatively rapid growth in all phases of the industry in Minnesota over a long period of time is reported. Transportation and distribution arrangements have improved.

960. KRAUSS, W. E. Responsibility of the milk producer to the consumer. *Ohio Agr. Expt. Sta. Bimo. B.* 25(203): 31-35. Mar./Apr. 1940. 100 Oh3S

Deals in part with lowering costs of production, and gives figures showing relationship between production level and cost of milk production, 1938.

961. KRIEGEL, M. W. Establishing a cheese factory in Texas; fundamental considerations. *Austin, U. of Tex.* 1940. 49 p. 44 K89

Suggests desirable conditions for manufacturing cheese, covering location of plant, raw materials, and equipment.

962. LAYSON, S. V. New laws designed to improve sanitation, preserve inherent quality, and for the benefit of all to increase consumption of milk. *Milk Plant Monthly* 29(1): 53-54, 56. Jan. 1940. 44.8 C864

From an address delivered at the convention of the Illinois Dairy Products Association. A discussion of the Grade A Milk Law and the rewritten Pasteurization Law enacted by the General Assembly of Illinois in 1939.

963. LOW-COST milk program seeks wider outlets. *U. S. Ext. Serv. Ext. Serv. Rev.* 11: 42. Mar. 1940. 1 Ex892Ex

Operating with Federal funds, low-cost milk programs for needy and relief families are in effect in the Boston and Chicago milk markets. One of the prime objectives is to make it possible for people to use milk in greater quantities with a minimum amount of interference with regular business.

964. LUCAS, P. S. It pays to condense. *Natl. Butter and Cheese J.* 31(9): 36, 38. Sept. 1940. 286.85 B98Bu

Cost of manufacturing bulk condensed milk suitable for ice cream mix, and for use by bakers.

965. MAACK, A. C., and TRACY, P. H. A method for the accurate sampling of ice cream. *Ice Cream Rev.* 23(8): 36, 58. Mar. 1940. 389.8 Ic22

Paper presented at the Illinois Dairy Manufacturers Conference, Urbana, Ill., Nov. 13-17, 1939.

Results of research at the University of Illinois in 1939 in the testing of fruit, nut, and candy ice cream.

966. MCBRIDE, C. G., and SHERMAN, R. W. Farm sales of Ohio milk through different outlets. *Ohio State U. Dept. of Rural Econ., Mimeo. B.* 131, pt. 1, 30 p. 1940. 281.9 Oh32

Pt. 1, covers the Columbus area and includes Delaware, Fairfield, Franklin, Licking, Madison, Pickaway and Union Counties.

Study is based on a survey of all farms with three or more cows. Creameries and milk products manufacturing plants in the area are shown and changes in market outlets, 1903-1940 are discussed.

Data for counties and townships are presented in tables and charts, and show number of dairy farms and milk cattle, and percent of each by market outlet, 1939.

967. MCBRIDE, C. G. The Ohio farmer and his milk market. *Ohio. Agr. Expt. Sta. B.* 614, 50 p. 1940. 100 Oh3S

Deals with the experiences of farmers in marketing whole milk, with emphasis upon the behavior and problems of the individual producer. Data used were taken from surveys of three townships, farm account records, and dealer statements. Topics discussed include finding and holding a market, milk statements, marketing plans, and the producers stake in transportation.

968. MACLEOD, A. The transportation of New Hampshire milk. II. Reorganization of truck routes. *N. H. Agr. Expt. Sta. B.* 325, 23 p. June 1940. 100 N45

Considers three schemes of reorganization: the first involving only those producers whose milk is being hauled on commercial truck routes; the second, those selling at wholesale, who either take their milk to the plant themselves, or exchange hauling with one or more of their neighbors; and the third, involving a relocation of milkshed boundaries so that unnecessary expense and duplication might be eliminated—a disturbance of producer-dealer relations.

969. MACLEOD, A. G. Newer developments and needed changes in State milk control. In *Northeastern Dairy Conference. Stenographic proceedings...* Providence, R. I., Mar. 7-8, 1940, p. 1-6. *N. Y., Consolidated Rptg. Co., 1940?* 44.9 N818

Legal and administrative aspects and bases for price-fixing.

970. MANITOBA, MILK CONTROL BOARD. Annual report, 1938-1940. *Winnipeg, 1939, 1940.* 280.3449 M31

Contains material on milk distribution, including costs of distribution and milk prices in the Winnipeg area.

971. MARQUARDT, J. C. How cheese quality is determined. *Farm Res. [N. Y. State Sta.]* 6(2): 13-14. Apr. 1, 1940. 100 N48A

Discusses briefly grading or scoring of dairy products, and cheddar cheese score cards.

972. MARTIN, W. H., NELSON, F. E., and CAULFIELD, W. J. Measuring the quality of ice cream. *J. Dairy Sci.* 23: 135-147. Jan. 1940. 44.8 J822

Shows standard plate counts, minimum amounts of samples containing *Escherichia-Aerobacter* organisms, results of phosphatase and butterfat tests, weight per gallon, and flavor, body and texture, color and package scores on 318 samples of ice cream collected from over 300 Kansas ice cream manufacturers during July, 1938.

973. MILK and cream grading. *J. Agr. New Zeal.* 60: 11-12. Jan. 15, 1940. 23 N48J

Discusses methods and standards of grading milk and cream for butter-making and of grading milk for cheese-making.

974. MILK RESEARCH COUNCIL. Housewives' attitudes on milk containers in Manhattan and Brooklyn. In *Brown, E. F. Milk Papers* 7(184), 59 p. Jan.-Feb. 1940. 281.344 B81

Sanford Griffith was in charge of the survey and was assisted by Alvin Meyrowitz.

2,000 housewives were interviewed and gave opinions on milk buying habits (place, grade and quantity bought); paper container vs. glass bottle (which is more sanitary and takes less room in the ice box); two-quart container (reasons for using or not using); store prices; and nationality and milk habits (Americans buy more Grade A than any other nationality).

Questionnaire used in the survey is given on p. 57-59.

975. MOON, H. A. Analyzing packaging operation costs. *Mod. Packaging* 14(3): 77-80. Nov. 1940. 309.8 M72

Four types of analysis are used involving the investigation of lost motion, the correlation between men and machines, the relationship of the packaging operations to other operations that come either before or after the actual packaging, and the part that the packaging operations play in creating peak loads for power systems, for labor and the use of refrigeration or other machinery. The application of this method to a milk pasteurizing and bottling plant is shown.

976. MORRIS, C. G. What should be the price of milk. Milwaukee, Olsen, 1940. 190 p. 280.344 M83

Deals in part with the class price plan of buying milk, price cutting, milk control by boards or officials, and operations of producers and dealers.

977. MORTENSON, W. P. Legal possibilities and limitations of milk distribution as a public utility. J. Land and Pub. Util. Econ. 15: 438-447; 16: 61-71. Nov. 1939-Feb. 1940. 282.8 J82

Although the U. S. Supreme Court has not ruled upon the question, sufficient legal support exists for the position that the legislatures have power either to grant exclusive franchise to a private corporation to process and distribute milk, or to delegate to the city or municipality the power to perform the function itself through municipal ownership. Conjectures are made on the possibilities of Court action in this direction and on what degree of success public utility control operating as a unified system of milk distribution would have.

978. MORTENSON, W. P. Milk distribution as a public utility. Chicago, U. Chicago Press, 1940. 221 p. 280.344 M84

If the functions of processing and of distributing fluid milk were operated as an efficient unified system, the possible economies and resultant savings might be considerable, provided that the general public accepts this different approach to the milk distribution problem. The subject is in five parts: 1, History and background of fluid milk regulation; 2, Costs and profits of distributing milk and savings through unification; 3, Legal aspects of milk control; 4, Methods and difficulties of public utility control of milk distribution; and 5, Economic effects of such control.

979. MOSS, F. J. Milk investigations of the U. S. Public Health Service. J. Milk Technol. 3: 145-154. May-June 1940. 44.8 J824

Reviews research work carried out chiefly since the formation of the Office of Milk Investigations in 1923.

980. MUELLER, W. S. Suggested standards for chocolate milk drinks. Milk Plant Monthly 29(3): 25-28. Mar. 1940. 44.8 C864

Results of an experimental study undertaken in the Dairy Industry Department in cooperation with the Department of Bacteriology and Chemistry at the Massachusetts State College.

981. NEW ENGLAND RESEARCH COUNCIL ON MARKETING AND FOOD SUPPLY. Proceedings of the annual meeting held...at Boston, Massachusetts. Boston, 1936-1940. 5 v. 252.004 N443M

The proceedings of each meeting contain a section in which papers, round table discussions, and reports of the New England-Wide milk marketing study are given. The objectives and description of the study are covered in a paper which appears in the proceedings of the meeting held in 1936.

982. NEW YORK (STATE) DEPT. OF AGRICULTURE AND MARKETS. Annual report...for the years 1935-1939. Albany, J. B. Lyon, 1936-1940. 5 v. 2 N482R

Includes sections on milk control in the State, with information on administrative aspects and general developments in the industry.

983. NOYES, H. V. The effect of Federal and State regulations on the producer. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 19: 29-35. 1940. 44.9 V593

Regulation of producer price structure has helped to stabilize the New York milk market and has brought improved returns, but the surplus problem still remains.

984. NUGENT, R. This milk company finds six day-daylight delivery a success for both company and routemen. Milk Plant Monthly 29(5): 23-25. May, 1940. 44.8 C864

Outlines the advantages to both the distributor and the routemen of using a six-day milk delivery plan. Describes consumer reaction to the plan of the General Ice Cream Corporation, Schenectady, N. Y.

985. OMMODT, B. J. Quality improvement; the relationship of butter grading and other factors to the constant essential effort toward betterment of product. Amer. Butter Rev. 2: 422-423, 427. Dec. 1940. 44.8 Am37

Producers should aim at a butter product free from foreign matter, and of United States 92-93 score quality, with good keeping quality, uniform color, salt content and texture, and low yeast, mold and bacteria content. Adherence to quality standards in the grading of the raw material, plant sanitation, and Federal grading of the butter are factors in attaining this goal.

986. OREGON MILK CONTROL BOARD. Report, 1939-1940. 54 p. Portland? 1940. 280.3449 Or3

This, the first report on operations under the Milk Control Act, reviews activities and discusses the legal status of the act. Financial statements, statistical information and the text of the act, are included.

987. OWEN, R. L. The two-quart glass bottle. In Ill. U. Dept. of Dairy Husb. Mater. Presented at the Dairy Mfg. Short Course 1940: 133-138. 44.9 IL63M

The bottle is not a cure-all for the dairy business, but it is a great help in increasing consumption and in stopping the trend away from home delivery.

988. OXFORD UNIVERSITY. AGRICULTURAL ECONOMICS RESEARCH INSTITUTE. Milk investigation scheme. Costs of milk production in England and Wales. Interim Report 1-4, Oxford, U. 1937-40. 4 v. 281.344 Ox2M

Detailed analysis of cost figures for various producer groups and regions for the period November 1, 1934 to September 30, 1938.

989. PACKARD, A. A. Some experiences under a Federal milk marketing order. In Northeastern Dairy Conference. Stenographic Proceedings...Providence, R. I. Mar. 7-8, 1940, p. 103-107. New York, The Consolidated Rptg. Co., 1940? 44.9 N818

Considers the subject chiefly in relation to price levels.

990. PARKER, M. E. Quality control improved by research methods. Food Indus. 12(3): 41-44. Mar. 1940. 389.8 F737

Discusses the butter quality control program in operation at a large creamery, with emphasis on maintaining grade standards.

991. PELTON, G. M. What is the cost of a pound of butter? Natl. Butter and Cheese J. 31(8): 10-11, 35. Aug. 1940. 286.85 B98Bu

Considers kinds of procurement and processing expenses that go into plant delivered cost of butterfat.

992. PETTIT, G. H. N. Economic study of foods and grazing in milk production, study of conditions in the eastern counties of England. Cambridge U. Dept. of Agr. Farm Econ. Br. Rpt. 28, 40 p. Ref. 1940. 281.9 C14

The complex relationships between milk yield per cow and food input are discussed in detail, both in general terms, and by reference to data collected in the eastern counties in the operation of the Cambridge Food Recording Scheme for Dairy Cows during the three-year period 1934/35 - 1936/37. Includes a section on money costs.

993. PIERCE, C. W. Fluid milk vs. canned milk. Milk Dealer 29(10): 35, 63-64. July 1940. 44.8 M595

Preliminary results of a study on consumer preference in the use of evaporated and fresh milk made in the spring of 1939 at Johnstown, Pa.

994. PINCUS, S., and ABRAHAM, S. Practical value of deck inspection as compared with farm inspection. N. Y. State Assoc. Dairy and Milk Insp. Ann. Rpt. (1939) 13: 137-149. 1940. 44.9 N4833

The results of a program of deck control, put into effect in 1936 in the New York City milk shed, are summarized. The author finds that deck inspection is an inexpensive and rapid method of efficient sanitary control in comparison with dairy farm inspection. It is admitted that some milk may be rejected by the deck tests which does not contain an excessive bacteria count and also milk with high counts may be passed. Some of the rejections are based on objectionable odors and the presence of foreign materials not necessarily associated with high bacteria counts. For these reasons a more

uniform and less fallible procedure of deck examination by plant and regulatory employees is desirable.

Discussion, p. 149-152.

995. POLLARD, A. J. Duplication in delivery of milk to stores in New York City. N. Y. Col. Agr. Farm Econ. 116: 2863-2865. Jan. 1940. 280.8 C812

Obtained in a survey of retail food stores in New York City in June, 1938, data indicate an average number of delivery stops per store of 2.3. The independent stores tended to buy from more dealers than did the stores of other kinds, especially in low-income sections of the city. Duplication in delivery to independent stores was greater in the Bronx than in the other boroughs.

996. REED, O. E. Efficiency in milk production. In Brown, E. F., comp. Milk Papers 8(239), 15 p. Mar.-Sept. 1940. 281.344 B81

Finds that the two essentials for efficient and profitable dairying are cheap feeds and good cows. More attention should be given to the use of pasture and other home-grown roughage, and a breeding program followed that will eliminate the hereditary factors causing low production. Discusses in part new uses of skim milk and whey.

997. REED, O. E. Improving dairy herds to lower the cost of milk production. Internatl. Assoc. Milk Dealers Assoc. B. 6: 159-164. Dec. 17, 1940. 44.9 In8A

Shows how costs can be reduced by using high-producing cows and discusses the proved-sire system of breeding in this connection.

998. REED, O. M. Experiences in coordinating Federal and State milk control activities. In Northeastern Dairy Conference. Stenographic Proceedings...Providence, R. I., Mar. 7-8, 1940. p. 112-123. New York, Consolidated Rptg. Co. 1940? 44.9 N818

Evaluates the legal status of the Federal program and discusses price levels with stress on uniformity in milk market regulation.

999. REYNOLDS, H. C. An analysis of milk classification. Rural New Yorker 99: 20. Jan. 13, 1940. 6 R88

Shows manipulations under Pennsylvania price orders to increase dealer profits.

1000. ROCHESTER, A. Why farmers are poor; the agricultural crisis in the United States. New York, Internatl. Publishers, 1940. 317 p. Ref. 280.12 R58

In the section on milk, p. 231-243, prices, consumption, supply and demand are discussed and it is stated that the drive by dairy corporations for profits at the expense of the farmer and consumer is a basic source of difficulty to dairy farmers, and that the farmers' position is weakened by lack of balance between supply and effective demand.

1001. RUEHE, H. A. The trade barrier problem. In Ill. U. Dept. of Dairy Husb. Mater. Presented at Dairy Mfrs. Short Course 1940: 119-126. 44.9 IL63M

Defines an economic trade barrier and points out that activities of labor unions and producer groups, in some instances, react as trade barriers in the dairy industry. Barriers incident to the Agricultural Marketing Act of 1937 are considered as well as those arising from misuse of sanitary regulations and conflicting city inspections.

1002. SANBORN, J. R. Microbiological content of paperboard used in the packaging of foods. Amer. J. Pub. Health 30: 247-255. Mar. 1940. 449.9 Am3J

Only very few counts in excess of 500 per gm. of disintegrated paperboard were found in 2,877 analyses of milk container board from 13 different mills. A standard of less than 500 colonies per gm. has been tentatively suggested.

1003. SCHUBRING, W. General review of the production and international trade of preserved milk. Internatl. Inst. Agr. 31: 424S-432S. June 1940. 241 In82A

Gives statistics of production of condensed, dried, and sterilized milk and exports and imports of condensed and dried milk, by country, 1932-38.

1004. SELBY, H. W. Dairy products. Natl. Assoc. Mktg. Off. Proc. 22: 21-24. 1940. 280.39 N213P
Address before the 22nd. annual meeting, Oct. 1940, Boston, Mass., evaluating current milk distribution and price control practices, and offering recommendations for improvement.

1005. SELBY, H. W. Should a milk control program include resale prices? In Northeastern Dairy Conference. Stenographic Proceedings...Providence, R. I., Mar. 7-8, 1940. p. 6-12. New York, The Consolidated Rptg. Co. 1940? 44.9 N818

Discussion by L. Spencer, p. 12-16.

Favors the fixing of resale prices when it becomes necessary to support a proper return to producers.

1006. SHARP, P. F. New developments in dairy science and their applications. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk. Distrib. 19: 15-19. 1940. 44.9 V593

Includes information on the utilization of milk in larger containers and held for additional periods of time, frozen cream, evaporated milk, dried whey, cheese, butter, lactose, and casein.

1007. SHULTIS, A. Dairy management in California. Calif. Agr. Expt. Sta. B. 640, 94 p. Aug. 1940. 100 C12S

Describes the four main dairy districts in the state, and presents information on dairy enterprise management relating to production per cow, price per pound of milk fat, net stock income per cow, total expense per cow, effect of size of herd on expense and net income per cow, effect of feeding on expense per cow, labor, facility and miscellaneous costs, with standard of costs for market and manufacturing milk in the San Joaquin Valley and Sonoma and Marin counties.

1008. SHURTS, T. M. The gallon jug. In Ill. U. Dept. of Dairy Husb. Mater. Presented at the Dairy Mfrg. Short Course 1940: 50-52. 44.9 I163M

Advantages and disadvantages of the gallon jug as shown by experiences of the Champaign-Urbana Dairy, are noted.

1009. SNOW, C. H. Is there a place for substandard products in the ice cream industry? Ice Cream Rev. 24(5): 74-75. Dec. 1940. 389.8 Ic22

Substandard or inferior commodities should not be substituted for the genuine, but there are places for additional standards for special products that fill a real need which is beneficial to the industry.

1010. SONLEY, L. T. Cost of transporting milk and cream to Boston. Vt. Agr. Expt. Sta. B. 462, 56 p. July 1940. 100 V59

Outlines the development of transportation facilities and tariff structures in the Boston milk and cream sheds, describes the present rates and methods of shipment, determines the approximate cost of the services and operations associated with transport which are included under rates only in certain cases, compares alternative methods as to total cost. Pages 3-5 deal with transportation as an element in marketing costs; table 1 with the relation of transportation rates to fluid milk and cream prices in two zones, August through December, 1939.

1011. SPENCER, L. Consumption and prices of canned milk as related to the demand for fresh milk. N. Y. Agr. Col. A. E. 303. 25 p., May 1940. 281.9 C81

Also in Brown, E. F., comp. Milk Papers 8(213), 25 p. Mar.-Sept. 1940. 281.344 B81

Reports a steady upward trend in per capita consumption of canned milk in the United States, due mainly to the fact that it has become much cheaper than fresh milk.

1012. SPENCER, L. A discussion of proposals for adjusting or controlling the milk supply with particular reference to the New York market. N. Y. Agr. Col. A. E. 316, 22 p. 1940. 281.9 C81

Also in Brown, E. F., comp. Milk Papers 8, (228). Mar.-Sept. 1940. 281.344 B81

Considers the milk supply and price situation, and different types of control measures.

1013. SPENCER, L., and KLING, H. The distribution of milk by sub-dealers in New York City. N. Y. Agr. Col. A. E. 320, 10 p. May 1940. 281.9 C81

Sub-dealers, or peddlers, handle approximately 4 percent of all milk sold in New York City, or nearly 10 percent of the milk delivered to the doorstep. They have established their businesses mainly in medium-income areas with relatively few stores. Four-fifths of them are located in Brooklyn and Queens. The daily average of sales of milk, mostly Grade B, sold to family trade, is 227 quarts per sub-dealer.

1014. SPENCER, L. Health regulations and the milk supply. Amer. Agr. 137(2): 19. Jan. 20, 1940. 6 Am3

A plan to reduce the milk supply for the New York market by withdrawing inspection from certain plants, thereby cutting off some of the dairies.

1015. SPENCER, L. Milk production control. N. Y. Agr. Col. A. E. 304, 18 p. Feb. 1940. 281.9 C81

Includes material on the milk supply and price situation, New York State, and on prices under the Monthly Quota Plan and the Basic-Surplus Plan.

1016. SPENCER, L. The price differential for direct delivery of milk to the Buffalo market. N. Y. Agr. Col. Dept. Agr. Econ. and Farm Mangt. A. E. 333, 26 p. Dec. 1940. 281.9 C81

Deals with price regulation under Order No. 127, effective Oct. 1938, issued by the Commissioner of Agriculture and Markets, N. Y. State, and with sanitation regulations of the Buffalo Health Dept.

1017. STRAND, E. G., and HOLE, E. Production responses of dairy farmers in east-central Minnesota. U. S. Bur. Agr. Econ. Farm Mangt. Rpt. 6, 71 p. 1940. 1.941 L6F22

Minnesota Agricultural Experiment Station cooperating. Includes material on butterfat price trends, 1921-1937.

1018. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Paper no. 1-14 series on State milk control acts. Washington, 1936-40. 14 v. 1.94 D14Ps

Discusses the type of regulations issued under these acts and legal developments in connection with their enforcement. One paper is devoted to each of the following states: Indiana, Alabama, Connecticut, New Jersey, Virginia, New York, Pennsylvania, Rhode Island, Vermont, Massachusetts, New Hampshire, Wisconsin, and Oregon.

1019. U. S. AGRICULTURAL ADJUSTMENT ADMIN. Statement concerning [various milk markets and the proposed marketing agreements for them]. Washington, 1938-40. 14 v. 1.94 D14Sta

Contents: Calumet, Indiana-Illinois market, by E. S. Harris and P. L. Miller; Chicago market, by L. K. Wallace and P. L. Miller; Dubuque, Iowa, market, by E. S. Harris and J. R. Hanson; Louisville market, by R. C. Tetro and P. L. Miller; Lowell-Lawrence market, by P. L. Miller and R. H. Farr; New Orleans market, by R. C. Tetro and P. L. Miller; New York metropolitan market; Omaha-Council Bluffs market, by P. L. Miller and E. S. Harris; Providence, Rhode Island market, by C. W. Smith, P. L. Miller and H. L. Forest; Quad Cities market, by E. S. Harris, C. W. Smith and P. L. Miller; St. Louis market, by P. L. Miller and R. H. Farr; Shreveport, Louisiana market, by R. H. Farr, J. R. Hanson and P. L. Miller; Sioux City market, by E. S. Harris and J. R. Hanson; Toledo market; Washington, D. C. market, by R. C. Tetro and P. L. Miller.

Bound with the statement concerning the Omaha-Council Bluffs market is U. S. Agricultural Adjustment Admin. The audit of handlers' records in connection with Federal regulation of milk marketing, by E. S. Harris and O. M. Reed. Washington, Dec. 1937. 17 p.

For each market information is given on economic conditions of producers supplying the market, the nature of the market, organization, milk classification, price levels, supply and demand and other provisions of the agreement.

1020. U. S. AGRICULTURAL MARKETING SERV. Handbook of official United States standards for quality of creamery butter; effective Apr. 1, 1939. Washington, 1940. 29 p. 1 M341H

"Explanation of United States Standards for Quality of Creamery Butter," p. 11-29, includes material on new features embodied in revised standards; the factor of flavor; classification of flavors according to origin; flavors and conditions in butter that cause it to be classified as "no grade"; factor of body, color and salt in butter; ratings of defects in body, color, and salt; tolerances for defects in body, color, and salt permitted in butter of certain flavor ratings; and container, finish, and appearance.

1021. U. S. AGRICULTURAL MARKETING SERV. Production of manufactured dairy products, 1938, and miscellaneous dairy statistics, 1939. Washington, 1940. 82 p. 1.9 Ec724D

Basically a statistical report. The discussion considers whole milk products, skimmed milk products, American cheese production, casein production and prices, and the disposition and value of milk produced, for 1938; and, separately, milk production and prices received for dairy products in 1939.

1022. U. S. BUR. OF AGRICULTURAL ECONOMICS. A special report to the Agricultural advisory council on price spreads between farmers and consumers. Washington, 1940. 24 p. 1.941 F3Sp31

Presents data on farm and retail prices and price margins between the farmer and the consumer for a selected group of foods, including dairy products.

1023. U. S. BUR. OF DAIRY INDUSTRY. Condensed and evaporated milk. Washington, 1940. 8 p. (BDIM-548) 1.9 D142Co

Includes figures for costs, prices, and production, and outlines prerequisites to establishing a condensery.

1024. U. S. BUR. OF DAIRY INDUSTRY. New evaporated milk and sweetened condensed milk standards. Supplement to "Condensed and evaporated milk," Washington, 1940. 2 p. (BDIM-548) 1.9 D142Co Suppl.

Relates chiefly to the identity of these products, and for evaporated milk the label statement of optional ingredients.

1025. U. S. BUR. OF DAIRY INDUSTRY. Report of the chief. Washington, 1936-1940. 5 v. 1 D14

Includes an account of the work for each year on production, utilization, sanitation and quality of dairy products.

1026. U. S. BUR. OF DAIRY INDUSTRY. A summary and analysis of the business on 23 dairy farms in West Virginia, including the cost of producing milk. U. S. Bur. Dairy Indus. BDIM 903, 28 p. 1940? 1.9 B14Bd

Issued in cooperation with the U. S. Bureau of Agricultural Economics and the College of Agriculture of West Virginia University.

Net costs of producing milk varied widely between farms in the wholesale and retail groups. Average net cost on wholesale farms was \$1.35 per 100 lbs. of 4 percent fat-corrected milk and on the seven farms that bottled and sold milk at retail the net cost (not including cost of bottling and delivering) was \$1.89. 11 pages of tables are appended.

1027. U. S. CONGRESS. HOUSE. COMMITTEE ON AGRICULTURE. Dairy products stabilization. Hearing, 76th Cong., 3d sess., on H. R. 6500 and H. R. 6530. Washington, 1940. 50 p. 280.344 Un323

Proposed legislation would extend principles of the Soil Conservation and Domestic Allotment Act, and the Agricultural Adjustment Act of 1938, to the dairy industry, assist in the marketing of dairy products for domestic consumption and export, and assist dairymen to obtain, insofar as possible, parity prices for milk and its products and parity of income.

1028. U. S. CONGRESS. SENATE. COMMITTEE ON AGRICULTURE AND FORESTRY. Promotion of sound dairy practices. Hearings, 76th Cong. 3d sess., on S. 2835, Mar. 20-22, 1940. Washington, 1940. 97 p. 281.344 Un3

Testimony on a bill to extend the provisions of the Soil Conservation and Domestic Allotment Act and the Agricultural Adjustment Act to milk and its products.

1029. U. S. MARKETING LAWS SURVEY. A digest of State laws relating to the problem of interstate trade barriers for States whose legislatures convene in 1940. Prepared... at the request of the United States Department of Commerce and the Inter-departmental Committee on Interstate Trade Barriers. Washington, 1940. 1 v. 173.2 W89Dis

A series of 32 charts, covering the states of Kentucky, Louisiana, Mississippi, Nebraska, New Jersey, New York, Rhode Island, South Carolina, and Virginia, presenting a digest of marketing legislation in certain categories. Milk and dairy is one of the categories included.

1030. U. S. MARKETING LAWS SURVEY. State price control legislation. Washington, 1940. 558 p. (Its P. 2) 173.2 W89Map

Includes statutes affecting marketing of milk and milk products, and digest of pertinent court decisions.

1031. U. S. NATIONAL BUR. OF STANDARDS. Ice-cream-brick molds and cartons. Simplified practice recommendation R120-40, 13 p. 1940. 157.88 S15

1032. U. S. PUBLIC HEALTH SERVICE. Milk ordinance and code, 1939. U. S. Pub. Health Serv. B. 220, 160 p. 1940. 151.66 B87

Recommended for adoption by States and communities in order to encourage a greater uniformity of milk control practice in the United States, the ordinance regulates the production, transportation, processing, handling, sampling, examination, grading, labeling, regrading, and sale of milk and milk products; the inspection of dairy herds, dairies, and milk plants; the issuing and revocation of permits to milk producers and distributors; the placarding of restaurants and other establishments serving milk or milk products; and the fixing of penalties. The code is to be used as the legal interpretation of the ordinance.

1033. U. S. TARIFF COMMISSION. Dairy products and reciprocal trade agreements. Washington, 1940. 22 p. 173 T17Dai

Summary for the dairy industry of the principal tariff concessions granted by the United States and the concessions obtained from foreign countries on United States exports of dairy products. Statistics are given for representative years since 1929 of production, exports, and imports of all products and of individual major products with concession and non-concession items distinguished.

1034. VAN ARSDEL, W. B. The industrial market for farm products. U. S. D. A. Ybk. 1940: 606-626. 1 Ag84Y

Outlines some uses of casein, p. 613-614, and refers to the product as a plastics material, p. 615.

1035. VARIOUS plans being tried for increasing milk sales by quantity discounts. Milk Plant Monthly 29(1): 24-31. Feb. 1940. 44.8 C864

Plans suggested include the use of two-quart and one-gallon bottles, multiple quart bottle deliveries, consolidated or cooperative deliveries, six-day deliveries, and voluntary reduction of route men's wages.

1036. VARNEY, H. R. The future of dairying in New England. Vt. U. and State Agr. Col. Dept. Anim. and Dairy Husb. Papers Presented at Short Course Conf. for Dairy Plant Oper. and Milk Distrib. 19: 66-71. 1940. 44.9 V593

Discusses milk supply and demand, competition from other areas, and price and production control.

1037. VIAL, E. E. Ice cream consumption and consumer purchasing power. Ice Cream Rev. 24(2): 18-19, 68-69. Sept. 1940. 389.8 Ic22

Weather and purchasing power are important factors affecting consumption of ice cream.

1038. VIAL, E. E. Production and consumption of manufactured dairy products. U. S. D. A. Tech. B. 722, 76 p. Apr. 1940. 1 Ag84Te

Shows changes in production and consumption, and relationships between production, foreign trade, and consumption of the individual products, as well as all combined. Products considered are butter, cheese, concentrated milks, ice cream, malted milk, dried or powdered whole milk and cream, and skim milk and buttermilk. Uses for skim milk are discussed.

1039. WALWORTH, G. Feeding the nation in peace and war. London, Allen & Unwin, 1940. 548 p. 280.3 W17F

Various marketing experiments in Great Britain, including the Milk Marketing Schemes are surveyed and facts arising from a study of the Milk Board's activities are presented. Concludes, in the case of milk, that the schemes have not been satisfactory and that the whole industry needs reorganization.

1040. WALWORTH, G. Hopeless milk position: new contract muddles. Co-op Rev. 14: 130-132. Apr. 1940. 280.28 C7823.

A milk contract prescribed by the Milk Marketing Board, dating from Apr. 1, 1940 until Sept. 30, 1940 and permitting of extension, is criticized chiefly on the score of inadequacy in providing subsidies to producers from a central pool. Another difficulty is seen in the fact that the Milk Board will continue to function on behalf of the producers, but the Ministry of Food has the responsibility of fixing prices of milk and, if necessary, deciding the purposes for which the milk is used.

1041. WARNER, G. Controlling weights and measures of packaged dairy products. Wis. U. Dept. Dairy Indus. Dairy Mfrs. Conf. Papers 1940: 8-14. 44.9 W757

Reviews laws and regulations on the subject, with particular application to Wisconsin.

1042. WATSON, A. E., and RAUCHENSTEIN, E. The organization and management of 95 dairy and cash crop farms in Androscoggin and Oxford counties, Maine. Maine Agr. Expt. Sta. B. 398, 72 p. Feb. 1940. 100 M28S

The period covered is from May 1, 1936 to Apr. 30, 1937. Includes milk production costs, use of the milk produced, and relation between seasonal variation of cows freshening, milk sales, and wholesale composite milk prices.

1043. WATSON, J. F. Container competition. In Northeastern Dairy Conf. Stenographic Proc... Providence, R. I., Mar. 7-8, 1940, p. 91-98. New York, Consolidated Rptg. Co., 1940? 44.9 N818

Shows developments in the construction and use of glass and paper milk containers, and compares container costs.

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Belgium	495	New York City market area	474	New York City	194-5	Maine	44 919
Sweden	1052	regulation	99	Wales	473 475 995 1013	Moline, Ill.	1019
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Sweden	15	certified	480 881	research		New Hampshire	341
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Marion J A	767	666 903 906 1049		effect of container	42		1019
Market analysts	780	Canada	70 535	research	862	New York City	21 125
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Marquardt J C 347 768	971	Pennsylvania, Johnstown	993	167 169 174		Ogden, Utah	896
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Md. Agr. Expt. Sta.	38 92	208 422 519 588		973 1045		Pittsburgh, Pa.	376 556
Mass. Milk Control Bd.	90	664 709-10 819 827		Alabama	921	Providence, R. I.	1019
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	980	Albania	719	equipment	759 770	Rock Island, Ill.	1019
Dept. Dairy Indus.	980	Austria	655	farm	555	St. Louis, Mo.	8 185
Ext. Serv.	188 562 890	Belgium	719	Germany	213 417	636 888 1019 1047	
Mastitis, bovine, control	590	Bulgaria	719	Great Britain	168 808	San Diego, Calif.	636
	688	Canada	16 536 940	Illinois	962	Shreveport, La.	1019
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Mayberry R H	771	estimating methods	640	New Jersey	459	marketing	113 159 190 262
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Merket H	774	New York	951	New York	994	California	145
Merrick F	924 925	Buffalo	504 894	labeling	461	Los Angeles	146
Merrill A R	345	New York City	19 672	market areas	51 208	Connecticut	25 219-20
Methylene blue test	167 344 528 628	Rochester	19 450	Bettendorf Iowa	1019	New Haven	825
	352	Norway	719	Boston, Mass.	310 562	costs	21-2 98 131
Metzger M J	360	Philadelphia	19	586 636		208 469 509 588	
Meyer C H	779 974	Poland	719	Buffalo, N. Y.	894	797 826 886 895	
Meyrowitz A	360	research	163	Calumet, Ill.	1019	901 927	
Michaelian M B	170	Rumania	719	Canada		California	837
Mich. Agr. Expt. Sta.	843 873 953	Scotland	172 527	Calgary	223	Canada, Manitoba	970
Mich. Milk Prod. Assoc.	775	Sweden	419 719	Edmonton	223	Connecticut	285 513
Mich. State Col.	171 456	Switzerland	719	Ontario	935	New Haven	893
Midland Agr. Col. Dept. Agr Econ	353 564	urban areas	717	Chicago, Ill.	888 1019	Florida, Jacksonville area	776
	879	Vermont, Burlington	510	Cincinnati, Ohio	636 639	Great Britain	354
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Milk		cooling, costs	117	District of Columbia	836	Kentucky, Lexington	391
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461 507 650 925		Connecticut, New Haven		Germany, Rhein-Westphalia	274	Minnesota	
labeling	103	England	225 498-9	Minneapolis	77	Minneapolis	77
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Italy	431	Rhode Island						Canada		236	940	England	26	279	
Massachusetts	562 890	Scotland						Manitoba			970	Europe		934	
Boston	619 823	small communities						Ontario			530 935	France		183 392	
Springfield area		Sweden						Connecticut			25 220	Germany	183	192 267	
Worcester		Vermont						effect on				288	398	417 774	
methods	7 18	Virginia						consumption				Great Britain		9 55	
257	469 650 668	Wales						demand				58 180	278	282 326	
836	887 929 1013	Wisconsin						England				435	470	492 499	
		Scotland	60 409					Midlands				667	695-6	726 731	
New England	721 981	services						farm		132	418	747		747	
New York	130 228	surveys						California			744	Indiana		301 540	743
Buffalo		Buffalo, N. Y.						Indiana			88-9	435	470	492 499	
New York City	820	Chicago, Ill.						Massachusetts			562	667	695-6	726 731	
823	897 1013	Great Britain									619			747	
New Zealand, Wellington		Battersea area						New York		822	983	Indiana		301 540	743
		Somerset						Pennsylvania			556	Maine			319
Ohio, Cincinnati	913	Milwaukee, Wis.						for butter manufacture			55	Massachusetts		105	188
Pennsylvania	968	New Hampshire						France			84			200	
Chester County	311	New York City						Germany		78	247	Netherlands		641	
problems	336 666	Ohio						Great Britain		274	417	New England		1036	
quotas, Connecticut	219	Pennsylvania, Luzerne						Illinois		23	727	New York	40	45 54	
regulation	97 149 174	County						Chicago	158	352	744	105	109	130 228	
177	199 246 294	Switzerland						Indiana			777	364	382	457 514	
304	324 336 436	Tennessee						Italy		89	344	613	735	982 1012	
489	560 616 629	Twin City area						Louisiana, Kentwood area			24			1015-16	
638	656 709 720	Vermont						Maine			924	Northern Ireland		17	
809	895 942 969	Washington						Massachusetts			1042	Oregon		686 918	
989	998 1004 1030	Wisconsin						Boston			208	Pennsylvania		45 179	
Alabama		municipal distribution						Springfield			685			916	
Austria		New Zealand, Wellington						Worcester			705	Rome		183	
California	86 164 226	North Carolina, Tarboro						Michigan			775	Scotland		59 283	
428	488 544 631-2	urban communities						Detroit			775	Sweden		420 617	
	861 1018	Wisconsin						Kalamazoo			843	Switzerland		421	
Canada, British Columbia		packing and packages						Minnesota				Wales	279	383 730	
Nova Scotia	215 870	61	198 423 463					Twin City area	160	701		resale, fixing		427	
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England	26 383	consumer preferences						142	208	270	411	New York City		476	
Estonia	307	costs						413	584	678		St. Paul		77	
France	123	Detroit, Mich.						New York City	21	239		Scotland		653	
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433	453 563	New York								824		Great Britain		483 1040	
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326	354 356 370	bottles.										urban areas		717	
410	451 524-5 726-7	pasteurization	99 480									Vermont	310	443 879	
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Illinois		Pennsylvania										production		607	
Indiana	301 1018	regulation										Albania		719	
Italy	268	Germany										Austria		655	
Latvia	394	Illinois										Burgenland		320	
Louisiana, New Orleans												Belgium		719	
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Maine	919											Canada	206	302 395	
Maryland, Baltimore	157											Calgary area		223	
Massachusetts	348 561-2											Edmonton area		223	
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Boston	157 200 372											costs	18	22 95	
882												112	118	143 190	
Missouri, St. Louis	157											312	335	345 507	
New England	1036											580	588	611 698	
New Hampshire	1018											709	711	714 740	
												797	805	849 895	
														960 996-7	1000

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California	147		727 764	farm methods	521	trade	845 857
Marin County	1007	Greece	719	Great Britain	462 764	Canada	395
San Joaquin County	204	Italy	14 182	Illinois	81	Italy	24
	515	Latvia	719	Massachusetts	222	transportation	111 214
San Joaquin Valley	1007	Lithuania	719	New England	221		423 519 812 920
Sonoma County	1007	Massachusetts	348	New Hampshire	118	bibliography	697
Canada		Nebraska	318	New York	1014	costs	20 22 101
Montreal area	757	New England	721	regulation	415 442 512		162 185 292 299
Ontario	530 733-4 935	New Jersey	573		553 662 698 718		574 727 899 920
Connecticut	25	New York	106 270 814A		722 749 806 877		
England	37 107-8		918	Buffalo, N. Y.	908 1001 1032	Boston market area	586 1010
	505 609 680-1	New York City area	474	Canada, Ontario	13	Connecticut	285 933
	988 992	Northeastern States	494	Connecticut	520	France	247
Bristol area	36	Norway	719	Denmark	315	Germany	267
Devon-Cornwall area		Pennsylvania	29 36	Eire	284	Great Britain	58
	290		556	England	801	Massachusetts	
Midlands	353 564	per cow	68 204	Kent	260	Springfield	
	691	Poland	719	Europe	941	Southwick-Agawam	
Tynedale	810	problems	545	Finland	243	area	684
Yorkshire	760-1	regulation	177	France	100	Nebraska	550
Florida, Jacksonville area	776	Germany	405	Paris	183	New Hampshire	559
		Great Britain	91 227	Germany	183 242 433		968
Germany			370	Berlin	183	Pennsylvania	585
Rhein-Westphalia area		Indiana	301	Great Britain	370 377	farm to plant	937
	274	Italy	431	Illinois	325 957	Great Britain	41 282
Great Britain	233 503	New England	478 1036	Chicago	202 552	methods	299 321
	682 866 869	New Jersey	459	Italy		Missouri	8
Illinois	1047	Rumania	719	Rome	183	New York	162
Indiana	743	seasonal	21-2 185	Kentucky	237	rates and services	208
Italy	24	statistics	1021	Latvia	394	refrigeration	79
Louisiana	852	Sweden	419 621 719	Minnesota		utilization	14 34 43
Kentwood area	924	Switzerland	719	Twin City area	160		84 109 155 287
southeastern	925	Tennessee	874	New England	478		295 338 444 591
Maine	44	Vermont	310 445 879	New Jersey	573		607 614 623 708-9
Androscoggin County		Yugoslavia	719	New York	590 813		797 830 846 868
	1042	profits	905	New York City	239 441		877 932 939 955
Oxford County	1042	Austria	330	Northern Ireland	17		1006 1021
Maryland	38	Iowa	907	Pennsylvania	785	Albania	719
Michigan	456	producer-dealer division	668	Pittsburgh	376	Belgium	719
Minnesota	1017	Vermont	68	Texas	900	Bulgaria	719
Missouri	1047	quality	48 321 519	Vermont	679	Canada	16 955
New Jersey	788	California	1	Wales	801	Denmark	719
New York 32-3	114 502	Germany	398	Wisconsin	943	Estonia	719
	584 648 783 915	Great Britain	462	shipments		farm	262 607
	1012 1015	Nebraska	313	interstate regulation	218	Finland	719
Orange County	31	Oregon	918	into New Jersey	263	France	224 250
Tully Homer area	114	regulation	668 742	standardization. See Milk,		Germany	191 211 288
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Northern Ireland	63	Denmark	315	storage and warehousing	321	Great Britain	808
Oregon	918	England, Tynedale	810	supplies	1000	Greece	719
Pennsylvania	885 916	France	271	factors affecting	208	Iceland	719
Chester County	311	Germany	417 434	Florida	712	Illinois, Chicago	800
Scotland	496-7 653	Italy	230	London	65	Latvia	719
Styrian Enns Valley	193	Tennessee	874	New York	1014	Lithuania	719
Sweden	546	Utah	618	New Zealand	337	Maine	919
Utah	866	receipts, New York	799	surplus	257 382 413	Nebraska	318
Vermont	334 532	refrigeration, costs	117	Connecticut	487 614 668 816	Norway	719
Lake Champlain Valley		research	979	Germany	220	Pennsylvania	29 336
	196	sales		Illinois	211	Poland	719
Wales	300 680-2 988	Denmark	399	Kentucky	922	Rumania	719
West Virginia	289 1026	in bottles	778	Massachusetts	391	Sweden	719
Charleston area	293	New Hampshire	341	Boston	844	Switzerland	719
Fairmont area	66	New York		Springfield area	685	Wales	736
Huntington area	293	Buffalo	894	Michigan	775	Yugoslavia	719
Morgantown area	66	New York City	441 476	New York	109 514	See also Chocolate milk; Con-	
Wisconsin			671	New York City market area		densed milk; Evaporated	
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